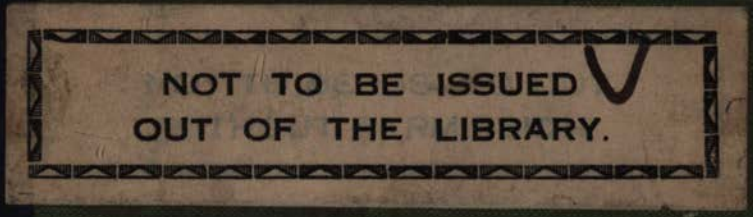
THE ORGANIZATION OF AGRICULTURE



E. A. PRATT

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THE ORGANIZATION OF AGRICULTURE

BY EDWIN A. PRATT

AUTHOR OF "AMERICAN RAILWAYS"
"TRADE UNIONISM AND BRITISH INDUSTRY"
"LEADING POINTS IN SOUTH AFRICAN HISTORY"
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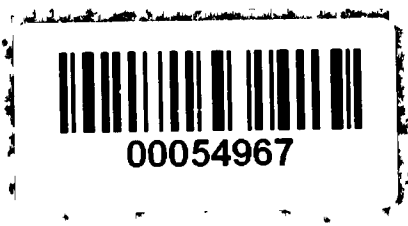
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CONTENTS

CHAPTER		PAGE
	INTRODUCTION	vii
I.	THE RAILWAYS AND AGRICULTURE	1
II.	A DISSERTATION ON EGGS	12
III.	AGRICULTURAL ORGANIZATION IN DENMARK	25
IV.	GERMANY	41
V.	FRANCE	57
VI.	BELGIUM	88
VII.	ITALY	105
VIII.	HOLLAND	125
IX.	HUNGARY	141
X.	AUSTRIA	165
XI.	SWITZERLAND	170
XII.	SWEDEN AND NORWAY	176
XIII.	FINLAND	183
XIV.	SIBERIA	197
XV.	SERVIA	208
XVI.	POLAND	215
XVII.	LUXEMBURG	221
XVIII.	THE UNITED STATES	225
XIX.	ARGENTINA	236
XX.	CANADA	240
XXI.	AUSTRALASIA	258

CHAPTER		PAGE
XXII.	IRELAND	269
XXIII.	ENGLAND AND WALES . . .	289
XXIV.	A GERMAN VIEW OF ENGLISH AGRICULTURE	316
XXV.	DO THE RAILWAYS HELP THE FARMERS? .	327
XXVI.	CONCLUSION AND RECOMMENDATIONS . .	364
	INDEX	393

INTRODUCTION

THE matter contained in the present volume represents a substantial expansion of a series of four articles on "The Organization of Agriculture," published in *The Times* at Easter, 1904. The information then given as to conditions in Denmark, Germany, France, Belgium, Italy, Holland, Finland, and England and Wales has been considerably amplified, while the details contained in the chapters headed "A Dissertation on Eggs," "Hungary," "Austria," "Switzerland," "Sweden and Norway," "Siberia," "Servia," "Poland," "Luxemburg," "The United States," "Argentina," "Canada," "Australasia," "Ireland," and "A German View of English Agriculture" are now presented for the first time.

How the work came to be undertaken is sufficiently explained in the opening chapter.

The inquiry instituted covered so much ground that the task to be accomplished seemed to be one which called for the combined energies of a Royal Commission, rather than one that might legitimately be regarded as within the scope of an individual investigator. But a Royal Commission would have been difficult to get; its inquiry into such a subject would have extended over a considerable period, and the results would have been stated in ponderous Blue-books, which the persons most concerned would probably never have read. In these circumstances there seemed to be advantages in the direction of dealing with the subject at once from a more popular standpoint, and in such a way as would have a better chance of reaching the interests affected, even though the treatment of the matter might be less exhaustive than that which it would have received at the hands of official inquirers.

Avowedly, therefore, the present volume attempts to give no more than a general survey of that movement in favour of agricultural organization which, as will be seen, is now spreading practically throughout the civilized world. Severe compression has had to be adopted in order to

get such a survey within the limits of a single volume of modest proportions, and much that would have been of interest to the student of economics has necessarily had to be omitted. In fact, in many of the countries dealt with the agricultural revival now proceeding there is so interesting in itself, and of such importance from the economic standpoint, that a separate volume might be devoted to each of them. There is, indeed, abundant scope to-day for the enterprise of some twentieth-century Arthur Young, who would make a *tour du monde* in order to fully describe what the following pages can do little more than indicate—the position, namely, of "The New Agriculture," and the effect thereof on both the material and the social conditions of the peoples of the world.

Thus the subject has much wider ramifications than any issue as between railway and agricultural interests, and I have here sought to deal with it from the broader as well as from the narrower point of view. Whether or not the conclusions at which I have arrived, as set out on pages 390–1, are warranted the reader must say for himself; but in any case the information here brought together, from

so many different sources, should prove an acceptable contribution to the available sources of knowledge on a subject of world-wide and steadily increasing interest.

I have now only to add that further developments, brought about as these pages are passing through the Press, modify one or two of the statements made in the body of the work. It is, for instance, no longer the fact that, as I say on page 307, England has only local co-operative agricultural societies, whereas Wales has a "Welsh Farmers' Federation." This assertion was true enough when I wrote it, and when the printers printed it; but a conference of representatives of agricultural co-operative societies in Worcestershire and neighbouring counties has since formed a "Midland Agricultural Co-operative Federation" for the purposes alike of combined purchase and combined sale. Arrangements, I hear, are also being made to federate the Yorkshire societies. Then on page 380 I have suggested that "it may be found desirable to amalgamate the Agricultural Organization Society and the Co-operative Banks Association, so as to give greater force to the efforts that

each is making." The bodies concerned have not waited for this recommendation to appear in print. They have anticipated it by already amalgamating.

EDWIN A. PRATT

LONDON *April*, 1904

THE ORGANIZATION OF AGRICULTURE

CHAPTER I

THE RAILWAYS AND AGRICULTURE

BETWEEN the British farmer and the British railways there has for years past been a certain amount of friction. The farmer has alleged a variety of grievances against the railways, and the railways, in return, have not hesitated to discuss the shortcomings of the farmer; but hitherto there has been little hope of a common understanding between them, and meanwhile the condition of British agriculture has been going from bad to worse.

Representations have been made that the railways are seeking to cripple British agriculture; but a moment's reflection must suffice to show how absolutely foolish and short-sighted such a policy would be. The increased prosperity

of a country district means far more to a British railway company than the carriage of a larger quantity of agricultural produce therefrom. It means greater traffic to the district in the shape of seeds, manures, feeding-stuffs, implements, and agricultural machinery before the return freight in the shape of actual produce is ready. It means that more families will settle in those districts, and that with every additional family there will be greater need for the transport of furniture, food, clothing, and countless other household necessaries. It means that as the income of the family increases they will be able to afford domestic luxuries in the shape of pianos, carriages, and other such things, which will probably be bought "in town" and carried on the railway; and it means, also, that more individuals will travel to and from the districts in question, and thus swell the receipts from passenger traffic. In these and other ways the British railways have a direct and very important interest in the welfare of British agriculture. Indeed, as shown by the considerations just presented, they have much more to hope for from carrying a given quantity of British produce than they have from simply bringing from the coast to an inland town a corresponding amount of foreign produce, which represents, for them, only a single transaction.

Here, of course, the whole point depends on the words "corresponding amount," the actual fact being that the quantities of agricultural produce coming to this country from abroad, and carried on our railways, are greatly in excess of those that our own farmers can, or do, supply. It is this factor that lies at the bottom of most of the grievances alleged against the railways by British agriculturists, who do not always sufficiently realize the differences which must necessarily exist, even in regard to railway rates, between wholesale and retail; and if only the British farmer could, under any possible circumstances, put himself on the same footing as the foreign agriculturists in respect alike to quantity and conditions of particular items of produce, he would secure the same advantages as they do, and the railways themselves would also gain, both directly and indirectly.

In all these circumstances the time would seem to have come for abandoning any idea of antagonism or even of want of sympathy between interests which are so obviously identical, and for seeing whether some clearer understanding in regard to actual facts, conditions and possibilities cannot be arrived at which will be good for the farmers, good for the railways, and good for the country. To this end, on

the completion of my book on the subject of *American Railways*, I undertook a mission to make an unprejudiced inquiry into the "anomalies" and other grievances alleged in regard to the operation of British railways—especially from the agricultural standpoint—and also into the conditions existing in various Continental countries.

After investigations carried on in England, Scotland, and Ireland, I started on my inquiries abroad with the idea mainly of instituting comparisons between English and foreign railway rates, and I learned how, in most of the foreign countries where the railways are owned or controlled by the State, the low rates in respect to goods for export (with which inland railway rates in this country are so often compared) are mainly the result—apart from the question of rivalry between ports—either of the highly organized condition of trades, and especially of agriculture, which leads to the consignment of goods to the railways in waggon-loads, and, in some cases, even in train-loads; or of what is practically a bounty on the export of agricultural produce or manufactured articles in the interests of the country. I found concerning Germany that the profits derived from the State railways are regarded by the Government as a

source of revenue, to the extent of which the Ministers are independent of Reichstag votes; that the development of the State railways, so as to meet present-day conditions—on the lines on which an English or an American railway company would have developed them—has been retarded because a generous expenditure would have interfered with the finances of the State; and that while the Government have granted extremely low rates for goods or produce for export (especially when such traffic might otherwise go *viâ* Belgium or Holland), they have been far less generous to home traders, who have found it a matter of extreme difficulty to get reductions in local rates, either because the condition of the State finances would not allow of them, or because the State officials were afraid of arousing the jealousies of rival districts. I found in Belgium that the rates not only for export, but also for inland, traffic were distinctly low; but I learned, too, that there were very grave doubts indeed if the railways of that country could be said to represent in themselves a commercially sound institution, however useful may be the rôle which, in various ways, they play as part of the political machine of the country. I found in France the same keen desire as in other Continental countries to

facilitate exports—particularly to Great Britain —by conceding specially low rates for agricultural produce or ordinary merchandise going abroad, while the rates to inland towns were substantially higher; though the great French railway companies need have less fear about giving low rates for exports, considering that their payment of interest is guaranteed by the State. I found in Holland that the railway rates are low mainly because inland water competition exists there to an extent unknown in any other country in Europe. Finally I found in Denmark that the State reduced the rates on its lines of railway in 1897 owing to an outcry on the part of the agriculturists. They learned that there was actually a profit of 2 per cent. being made on the railways, and this profit, they declared, ought to be returned to the "people." But under the altered conditions thus brought about the lines have since barely paid their way, and the rates had, consequently, to be raised again, the new tariff coming into force on July 1st, 1903.

On these and many other similar points there is much that might be said as to the absolute impracticability of making fair comparisons between British and Continental railways, and I hope to have the opportunity of discussing them

in greater detail on a future occasion. But while I was pursuing my inquiries in these directions, the cardinal fact that was always being brought to my attention was that the agriculturist abroad was not a mere unit, as he is in this country, but a member of a highly and skilfully organized combination which could not only dispose of its production in big loads, but was also able to purchase its necessary supplies in such large amounts as to secure a substantial reduction alike in their cost and in railway rates for their transportation.

This fact led me to make a careful study of the conditions of agriculture abroad, and to seek with great minuteness for the answer to the question constantly before my mind: "How is it that the foreigners are able to send us such big loads? Are there any special advantages they possess which might be secured by the British farmer as a means of improving his own position?" And the more I inquired the more I was met by this striking fact: That in every one of the countries now pouring their agricultural produce into Great Britain there has been an agricultural revival which has led to the spreading throughout each of them of a more or less complete network of agricultural organization, manifesting itself, in varying degrees, in the

spread of agricultural education, and in combinations among the agricultural community for an endless variety of purposes, including the virtual transformation of farming methods in accordance with the latest developments of agricultural science; organizations for obtaining agricultural necessaries of reliable qualities at lesser cost; the purchase in common of costly machinery which would otherwise be beyond the means of a small cultivator; the formation of co-operative societies for purposes both of production and of sale; the setting up of agricultural credit banks as a means of keeping the farmer out of the hands of the usurer, and enabling him to carry on his operations more successfully; and the improvement of the individual lot of the agriculturist in many different ways. The special circumstances in which this network of organization has been developed differ in each particular country, and it is a fundamental principle of the movement, regarded as a whole, that not only has each of the countries concerned differed from every other in establishing agricultural organizations suited to its national conditions, but the greatest degree of success has been obtained where the associations have been started on a very small scale in rural districts to meet local, or even strictly parochial,

conditions, and, while maintaining their individual entity, have afterwards combined with other similar bodies to form district, county, or even national federations for the attainment of common advantages.

The direct results of these new conditions have been to cheapen and to increase production in the countries concerned; to facilitate, and therefore to economise, the despatch of the greater quantities of produce available for export; and to so far improve the general position of the foreign producers that while Great Britain—the land whose agriculturists have been the slowest of any in resorting to all this organized effort—is still in the throes of agricultural depression, other countries which have reorganized their methods are proclaiming that the trials they also have had to experience have now, more or less, been surmounted. Further than this, not only are the said countries gaining or regaining agricultural prosperity, but it is to England—backward as she is in all the things which have brought them success—that they would seem to be looking, with one common accord, as a purchaser of produce from their own superabundance.

It is foreign to my purpose here to enter in any degree whatever into the controversy on

the fiscal problem, and I wish to remain absolutely impartial and free from prejudice in what I say. But I do think the country should realise that, whatever policy may eventually be adopted on the subject of food imports, there is need for a serious consideration of the question whether the methods under which the British farmer carries on his enterprises do not stand in need of revision, especially in view of the lines upon which his foreign competitors are operating. This problem would, indeed, remain even if the most generous degree of "protection" for which our agriculturists could hope were granted to them.

To help in its solution I propose to deal *seriatim* with different countries on the Continent of Europe, and elsewhere, showing what is being done there for the organization of agriculture in respect either to actual co-operation or to such grouping of consignments as still leads to the big loads that our railway companies are called upon to handle. To confine myself, for the time being, to this one aspect of a very wide subject may, I think, serve a purpose of greater utility and more immediate interest than if I entered at once on that more general discussion of British *v.* Continental railway rates and conditions which, as I have said, formed the original object of my inquiries.

Before, however, commencing this series of studies of individual countries, I should like to illustrate the general position in regard to the aforesaid big loads from the Continent by taking a single item of produce—that of eggs, which so many lands combine to send us in quantities so great—showing by this one example how such loads may be got together, and what, as regards the particular item in question, the position both of British railways and of British farmers is in relation thereto.

CHAPTER II

A DISSERTATION ON EGGS

THE fact that English railway companies carry over their lines large quantities of foreign eggs at lower rates than the British farmer pays for sending his own eggs to market is regarded by many people as a striking example of the "preference" that is alleged to be shown by them to the foreigners, and the real position of affairs in regard to this particular matter is worth examining with some degree of detail.

To begin with, it must be borne in mind that the conditions of the trade in English eggs are very different from those of the trade in foreign eggs. The market value of eggs depends on the distance they travel before reaching the hands of the wholesale or retail egg merchant, each day that has elapsed since they were laid being assumed to have added to their deterioration, except in the case of "pickled" eggs, large quantities of which are imported, not alone for

food, but also for use in various industrial processes. It is obvious, therefore, that the British farmer has an almost unassailable position in providing his home market with those new-laid varieties which realize the best prices. The only country that can seriously compete with him in this respect is France, and it is a curious fact that ten or fifteen years ago the best quality of eggs from France had a higher market value in this country than English "new-laid" eggs, the reason being that whereas in France the eggs were "graded" into sizes and qualities, so that what were described as new-laid could be depended on as such, in England the farmers had a way of sending to market as "new-laid" all the eggs they came across on their farms, without troubling to keep back those that had already been (say) partially hatched. But the British farmer is improving his methods, and the present position is that while the importation of the cheaper kind of eggs from all other countries has greatly increased, that of the best, as well as of the other, qualities from France has steadily declined. Fifteen years ago the value of French eggs imported into Great Britain stood at £1,600,000. In 1902 it was less than £900,000.

It would seem, therefore, that the British

farmer is now well able to hold his own as regards the particular branch of the egg business with which he is most directly concerned. The opportunities open to him are indicated somewhat by the fact that there is one London company alone which uses 70,000 new-laid eggs a week in its different refreshment rooms. This may be exceptional, but any farmer living within thirty miles of London, or within fifteen miles of Liverpool, Manchester, Birmingham, or any other large centre of population, will find there a market for all the new-laid eggs he can send in. The drawback to his position is that, with his comparatively small supplies, and the need he is under of sending them off promptly, so that they will arrive within the three-day limit, he is obliged to despatch them in a succession of consignments, day by day, and cannot keep them back until they will make a single substantial lot. It is the very essence of the situation, therefore, that with his present limited supplies, he simply cannot offer to the railway companies quantities approaching in any degree to the magnitude of those coming from abroad, so that though he may expect to realize the best price for his particular goods on the market, he is unable to get his small lots delivered there at the same proportionately

low rate as the big foreign importations secure by reason of their magnitude.

In districts at a greater distance from towns or cities combination is especially desirable in order to secure the grouping of consignments into larger quantities; but here again the home producer can hardly expect to place himself on exactly the same footing as the foreigner, until the supply of British-laid eggs assumes larger proportions. Not long ago the National Poultry Organization Society asked one of the English railway companies to reduce its rates for eggs from a certain agricultural district to London. At that very time the company was carrying through the district in question consignments of foreign eggs representing from 25 to 50-ton lots. But the company wanted to do what it could for the local residents, seeing that increased prosperity for the district meant increased prosperity for the railway. So it replied (in effect):—"If you will only send us eggs in 4-ton lots, as against the very much larger quantities we receive from abroad, we will give you a rate which will be 25 per cent. lower than we get as our share of the through rate charged to the foreigner." But the offer had to be declined simply because the production of the whole county would not have sufficed to make up a

4-ton lot. In the case of another English railway company, also operating in an agricultural district, the leading officials, when questioned on the subject, said they had never heard of such a consignment as a case of English eggs —a case representing 1,440 eggs. Whereas a single steamer arriving at a British port has been known to bring any number of tons of eggs up to eighty or ninety, which are carried to their destination in truck or even in train loads, consignments of English eggs would not average more than a single cwt., picked up at some wayside station. Yet the farmer who sends his cwt. expects to get the same rate as the wholesale dealers who handle their scores of tons.

The trade in foreign eggs has, indeed, attained to dimensions which few persons beyond those concerned therein can adequately realize. There is one firm alone in London that receives on an average 20,000 cases of eggs every week all the year round. The eggs in question come mostly from Russia, Galicia, Rumania, and Austria. Between April and August from 10,000 to 15,000 cases will be sent weekly to the firm in question by way of St. Petersburg or Riga direct to London by sea. The freight from port to port represents about 3*s.* a case, though,

as many of the eggs will have come from different parts of Western Siberia, and may already have been seven or fourteen days on the journey before reaching the port of embarkation, something must be added to the said 3*s.* in respect to land freight. From September to March the firm receive about 10,000 cases weekly, despatched overland from Lemberg (Galicia) or other collecting points, whence they are brought to London *viâ* the Thames or Harwich. In addition to the supplies coming to London in such quantities as these, very large consignments go from Hamburg to north-eastern ports for consumption or use in the northern counties. Special trains made up at Lemberg will run through to Hamburg in seventy-five hours, and since the month of September, 1902, a similar train has been started daily at Podwoloczyska, a station on the Russo-Rumanian frontier, to take eggs and other produce to either Hamburg or Bremen. The train will consist of about 30 waggons, each holding 10 tons, and while some of the eggs are destined for consumption in Germany, the bulk of them will come on to England. The freight from Galicia to London or to a north-eastern port works out at 9*s.* a case, based on the 10-ton rate, and the time occupied in the transit is about eight days.

One wonders how it is that eggs can be collected in such large quantities as these, and the information given on this point is certainly not without its interest. Throughout Southern Russia, Galicia, and Rumania almost every peasant has his stock of fowls, and not only is the rearing of them a well-understood art, ingrained in the people from long experience, but land costs only a few shillings an acre, and the abundant maize grown thereon is excellent feeding-stuff for the fowls, the cost and the keep of which are thus reduced to very small proportions indeed. The eggs are purchased from the peasants by "higglers"—mostly Jews—who make a business of going round from farm to farm, or from cottage to cottage, buying up all the eggs they can get. Certain towns in Galicia or elsewhere have their recognised egg markets, and in these towns live the agents of various English firms. To them the "higglers" will make the first offer of the eggs they have gathered in, and, if terms cannot then be arranged, the eggs will be put on the open market and disposed of there. In either case the agents who purchase the eggs re-pack them for transit by rail and sea, and this is so well done that only about 2 per cent. of those despatched to this country are found to be

broken on arrival. Of eggs classified as "Russian" the total number brought to Great Britain in 1902 was 640,000,000.

Somewhat similar conditions prevail in Italy, from which country we received 315,000,000 eggs in 1902. The through rate from Pordenone (Venetia) to London for 10-ton lots is £43 16*s.*, the dealers guaranteeing to send 800 of such lots, or a total of 8,000 tons of eggs, in the course of a year. In Denmark, thanks to effective organization, the value of the export trade in eggs rose from about £400,000 in 1895 to over £1,270,000 in 1902, the total number of eggs imported into Great Britain from Denmark in the latter year being 422,000,000. Bulgaria, too, has increased her exportation of eggs threefold since 1901, and has now become a strong competitor of Italy in supplying eggs to Belgium, the quantities she is sending there representing a value of about £90,000 a year. Even Egypt is exporting eggs in such quantities that the price of them for home consumption has materially advanced in the land of the Pharaohs, where so recently as 1895 they could be bought at the rate of 30 for 2½*d.* In 1897 Egypt exported 14,000,000 eggs of a value of £12,683; whereas in 1900 she exported 60,000,000 (of which 49,000,000 came to the

United Kingdom), representing a value of £83,000. Eggs now, also, constitute the principal item of export from Morocco, nearly 50,000,000 having been shipped in the course of a single season, though the trade has sprung up only within the last few years. The eggs are small in size, but they are of good quality, and large quantities are procurable at a moderate price.

Much progress has undoubtedly been made in England and Ireland of late years in regard to egg production; but there can be no suggestion that anything yet done in either country has rendered unnecessary a large importation of foreign eggs. If a wholesale dealer in London wanted 500 cases, he would find it practically hopeless to get them either in England or in Ireland, except, perhaps, after going to infinite trouble, and waiting a long time; but a telegraphed order to his agent at Podwoloczyska would bring the whole 500 cases to him in little more than a week.

From this same centre we get an illustration of the extent to which eggs are used for purely industrial purposes. There are at Podwoloczyska three albumen factories, each of which consumes annually from three to three and a half million eggs in manufacturing

processes, 1 lb. of albumen being extracted from every 7 lbs. of white of eggs. The albumen is used for printing textiles, in the making of porcelain, in sugar factories, and for other purposes. It is sent to various parts of Austria, to Germany, France, Great Britain, and to the United States, in cases of about 2 cwts., the value representing from £5 5*s.* to £5 10*s.* per cwt. The yolks of the eggs are worked up into a material for dressing glove leather.

A large proportion of the foreign eggs reaching this country travel so long a distance, and fetch so small a price on the market, that the through freight charged for their conveyance must necessarily be low if they are to be carried at all, and such lowness of freight is held to be warranted alike by these circumstances and by the vast quantities in which the eggs come. If the English railway companies, assuming the functions of Imperial Parliament, sought to impose a "hostile tariff" on foreign eggs by insisting on a higher rate for transit over their own lines they might either stop some of the trade altogether or else simply cause it to reach London *viâ* the Thames; but there would not necessarily be much direct benefit to the British farmer himself. As already shown, he can have the monopoly of the market for new-laid eggs

without fear of the competition of any country but France, and his great aim should be, by means of good methods and effective organization, to cultivate this particular branch of the trade, and be in a position to make better terms with the railways than, as shown above, he is able to do at present.

To render Great Britain entirely independent of foreign eggs would require, according to one trustworthy authority, twenty-five years of persistent effort, and even then it might be a question in regard to the cheapest qualities of eggs (and especially those used for industrial processes) whether, in a country of such limited dimensions as ours, the land could not be more profitably employed than by devoting it to poultry-raising on so large a scale, in order to compete with peasants occupying comparatively valueless land in Siberia, Galicia, and elsewhere. With a special market at home offering abundant scope for his own energies, the British farmer can, indeed, well look with complacency on the bulk of the imports of foreign eggs. On the other hand he ought not to expect any railway company, conducted on business principles, to carry retail lots at wholesale prices. When he is able to send truck-loads he will certainly get the most favourable truck-load rates; but if, in

the meantime, he is not in a position to make up a box of more than 56 lbs. at one time, he can hardly accuse the English railway companies of extortion if they charge him 1*s.*, or even 1*s.* 9*d.*, for carrying such a box a distance up to 200 miles, although this sum might be found to work out at a relatively higher figure than what they charge for a consignment of from 25 to 50 tons.

The striking difference between British and Continental methods, and the real need which exists in this country for effective organization, are well shown by the following paragraph, which I take from the *Western Daily Mercury* of April 25th, 1903:—

Within the past few years there has been a marked falling off in the Cornish egg trade. At one time a large trader in the Duchy used to supply eggs to the value of £200 a week to a well-known London shop, and to-day that shop does not take a single egg from Cornwall. Eight years ago Cornish dealers were sending eggs to London to the value of £25,000 a year. To-day the sum returned for such produce does not amount to £15,000. The reason of this altered state of things is not, as some suppose, due to the smaller size of the Cornish egg, because there is practically no difference between it and its successful rival from Denmark. Where the Cornish egg merchant damages his business is through his own carelessness. He will not study the requirements of the market. He will give no attention to uniformity, but will place large and small eggs, and also duck eggs, all in

the same box. Whether they are fresh or not is evidently no concern of his. He will not wash a stained egg. On the other hand, the farmers of Denmark are most particular about all these things. They place all the eggs of one size together. They arrange the different shades, and they see that every egg is fresh and clean. All that means saving to the shopman, together with the certainty of better prices and more trade.

CHAPTER III

AGRICULTURAL ORGANIZATION IN DENMARK

IT is in Denmark that the British farmer will find his most impressive object lessons as to the benefits to be derived from agricultural co-operation, and already many deputations have gone to Denmark to study the Danish system, and much has been written thereon. But the whole story of the way in which the Danes, in their diminutive and, at one time, hardly-pressed country, overcame the disadvantages of their position, and boldly met and were made only the stronger by adverse circumstances, is one that will bear re-telling, and is, indeed, one that cannot be told too often to the agriculturists of other lands who may feel depressed because their own conditions are not all that they would like them to be.

As left by the Napoleonic wars, Denmark was but little more than the wreck of a country, and even at the beginning of the last half-century

the manufacture of butter, as related by Mr. Rudolf Schou, in his book *Om Landbruget i Danmark*, was only of secondary importance, the cows being inferior, the yield of milk small, and the butter, made in ill-equipped dairies, very indifferent in quality. In 1860 Professor T. R. Segelcke began his efforts to place the industry on a rational and scientific basis; but close upon this followed the disastrous war with Prussia and Austria, as the result of which Denmark lost two of the fairest and most fertile of her provinces, and was thus reduced to the narrow limits of the islands and Jutland. Even of this area a substantial proportion consisted of moor, marsh, and dune land, fit, apparently, for nothing but for the wind and the storms to blow over. On the top of all this came the fall in the price of corn, which had hitherto been the staple product of Denmark, but the cultivation of which was found to be no longer remunerative.

Comparing the position of Denmark and of Great Britain respectively in the era of agricultural depression brought about at this period, it is evident from the circumstances narrated above that the former country found herself in much worse circumstances than the latter; but this very fact, perhaps, had a good deal to do with the greater degree of vigour shown by the Dan-

ish agriculturists. Reduced to the proportions of a dwarf, Denmark fought against adversity with the courage of a giant; and, crippled though she was, she not only regained her strength, but became a power in the commercial world with which other nations have had seriously to reckon.

One of the first things done was to secure such compensation as was possible for the loss of Schleswig-Holstein by reclaiming and bringing under cultivation the aforesaid moor, marsh, and dune land, of which the surface of Jutland then so largely consisted. In the days of ancient history there were extensive forests in this part of Denmark, with good pastures which, together with the abundant crops of acorns, afforded ample food for the swine that were kept there. But in the course of the centuries the trees gave way to brushwood, the brushwood was succeeded by heaths, the pastures disappeared, and a previously fertile district became little better than a desert waste, where, even so late as 1850, one could wander for hours without seeing a single human habitation. At that time the extent of these Danish *landes* represented a total of over 5,000 square miles, and the conditions were but very little improved, if at all, in 1866, when, following on the war, one of the most practical of Danish patriots, Colonel Dalgas, started the

Danish Heath Society, with the idea of bringing the area in question under cultivation. Roads were made, irrigation schemes were carried out, colonies were established, railways were constructed, and plantations were arranged, the final outcome of the society's work being that 25,000 acres of sandy land have been converted into productive soil, 75,000 acres have been planted with conifers, two experimental stations have been established, and 400 demonstration fields have been organized in all parts of the country where heath land is to be found. All this good work is still going on, and it has been taken up in other directions besides.

It was, of course, in the development of the dairy industry that the Danes mainly found the means of recovering from the crisis which had overtaken their economic, and especially their agricultural, conditions; but this relief was secured only as the result of prolonged experiment and much most patient effort. Originally the butter exported from Denmark came from what were little more than blending mills, the supplies produced by the individual farmers, and representing a variety of qualities and different degrees of freshness, being bought up and mixed together with results that were not always satisfactory to the purchaser, while the expense

to which each farmer was put in producing his own particular lot of butter left, as a rule, a very small margin for profit.

Then there was adopted the system of creameries, to which the farmers would take their cream only. This represented a distinct advance, as it effected a saving alike of time and of cost to the farmer; but the greatest degree of progress began with the perfection of the centrifugal cream separator, which left the farmer to do no more than send his milk to the butter factory, where the cream was taken from it by the separator, and the skim milk given back to him for the feeding of his pigs.

In other ways, besides, the researches of a number of learned professors had placed the working of the industry on a more scientific basis, thus facilitating operations, reducing expenses, and allowing of far better and much more profitable results being obtained than had been the case before. Then, also, the spread of an extremely practical scheme of national education, and especially agricultural education, had prepared the people to take advantage of the coming transformation; while the system of land tenure in Denmark, which had done so much to encourage both the creation of agricultural freeholders and the increase of small

holdings, had further strengthened the power of the agricultural community to benefit from the opportunities opening out to them.

The immediate and most striking outcome of these various conditions was a resort to co-operative dairies, so that the agricultural classes could get a maximum of possible benefit for themselves. The first co-operative dairy in Denmark was opened in West Jutland in 1882. Others followed, and to such an extent has the movement spread that to-day a co-operative dairy is to be found in almost every parish. There are now no fewer than 1,050 of such dairies in Denmark, with 148,000 members, owning 750,000 cows out of a total of 1,067,000 milch cows in the country. In 1902 Denmark exported, mainly to Great Britain, 168,000,000 lbs. of butter, 135,000,000 lbs. of this total representing home produce, and the remaining 33,000,000 lbs. butter received from Sweden and Russia. The total value of our imports of butter from Denmark in 1902 was £9,302,000, as compared with £8,950,000 in 1901, and £8,029,000 in 1900. The amount invested in the erection and equipment of the dairies is over £1,500,000. The practice usually adopted is for about 150 farmers in a particular district to raise, say, £1,200 by subscribing £8 each, this

sum being sufficient to provide a dairy which will deal with the milk of 850 cows. The establishment of the co-operative dairies has been followed by the founding of societies for the sale of butter, together with some 200 central unions which employ capable men to take periodical tests of the milk on the farms of the members, and see which particular cows gave the best results according to the quantity and cost of food consumed.

Next to the co-operative creameries, and now, indeed, rivalling them in importance, come the Danish co-operative bacon-curing factories, the success of which has been, if possible, even more rapid. It is interesting to find, however, that these factories were originally the outcome of political prejudices rather than of patriotic sentiment or commercial foresight. In 1872 the Liberals in Denmark got a majority in the Folkething, which majority they still retain; but the Conservatives remained in power (as they had been since the concession of the Constitution in 1849), the members of the Government being elected from the Landsthing, or Upper House. The Liberals resented this, and trouble arose as to the voting of the Budget, which, under the Constitution, required to be passed by the Lower House. The Government

surmounted the difficulty by inducing the King to ratify "provisional budgets," and this was done for a succession of years, to the increasing dissatisfaction of the Liberal party, the members of which were mostly small farmers in the country districts, the large farmers and the wholesale dealers belonging mainly to the Conservatives.

The opportunity of the Liberals came in 1887, when Germany closed her ports to live pigs from Denmark (owing to the fear of a possible introduction of swine fever from that country), and the Danish dealers had to think of converting more of the pigs into bacon, and exporting them in that form instead, mainly to England, which had begun to be a buyer of Danish bacon some years previously. The Liberal farmers rose to the occasion, and said to the Conservative dealers: "If you will not give us our political rights we will not let you have our pigs. We will start bacon-curing factories on our own account." And this was just what they did. They opened their first co-operative bacon-curing establishment at Horsens, Jutland, in 1887, more with the idea, as it would seem, of spiting the Conservatives than for purely commercial reasons; but the scheme was soon found to be well worth following up on its own

account, apart from any political considerations. The profits gained by the farmers were so much more substantial than they had been before that there was every inducement to start more and more co-operative factories, so that the growth of the movement became almost phenomenal, as the following table will show:—

YEAR.	CO-OPERATIVE FACTORIES.	NO. OF PIGS KILLED.	VALUE IN £	AVERAGE PRICE PER PIG.		
				£	s.	d.
1888	1	23,407	57,000	2	9	0
1889	8	131,548	327,000	2	18	0
1890	10	147,455	434,000	2	19	0
1891	14	269,743	755,000	2	18	0
1892	14	297,641	961,000	3	5	0
1893	14	317,785	1,064,000	3	5	0
1894	15	385,731	1,114,000	2	18	0
1895	17	528,811	1,273,000	2	8	0
1896	20	626,854	1,400,000	2	5	0
1897	25	583,420	1,618,000	2	15	0
1898	25	601,039	1,625,000	2	14	0
1899	25	729,171	1,733,000	2	5	0
1900	26	660,000	1,918,000	2	16	0
1901	26	651,261	2,111,000	3	0	0
1902	27	777,232	2,500,000	3	4	6
—	—	6,731,048	18,900,000	—		

In addition to these twenty-seven co-operative bacon factories, which have a total membership of 65,800, there are also in Denmark twenty-four private factories.

In the organization of the co-operative fac-

tories no capital is subscribed by the farmers, whose joint guarantees are sufficient to enable them to secure from the banking institutions of the country the loans they may require to defray the costs of construction, and to provide working capital as well, the loans being repaid out of the profits of the business. The members also guarantee to supply to the factories all the pigs they raise on their farms, a fine of ten Kroner (11*s.* 3*d.*) per pig being imposed in case of non-compliance. On sending in his pigs the farmer is paid a certain sum, representing less than the value, but subsequently he receives a share in the profits according to the number of animals he has supplied. The factories are able not only to carry on the work of bacon-curing economically, but they can utilize all the by-products, while the system of mutual insurance through the Central Association of Co-operative Bacon Curers, when sending consignments to England, represents a saving to each factory of 25 per cent. on this one item alone. Then, again, the establishment of co-operative bacon factories has been supplemented by a national movement, supported by the State, for improving the quality of the pigs. To this end experts were sent to Ireland and other countries to inquire into the methods of breeding and feeding in vogue there,

and there are instructors who give advice on these subjects to the Danish farmers, whenever desired.

Another highly successful branch of co-operative agriculture in Denmark is represented by the egg industry. Here the chief organization is that of the Dansk Andels Aeg-export, which was founded in 1895, and now constitutes the central body of a large number of local societies in all parts of Denmark. The members of these societies pledge themselves to deliver none but freshly-laid eggs, all that are sent in being so marked that the farmer supplying any single one of them can be readily traced, while a penalty of *5s.* *6d.* is imposed for every bad egg received after a warning has been given. The local societies remit the eggs to the central organization, which arranges for grading, packing, and sale, and fixes the price per lb. to be given to the farmers, less cost of collection and other expenses. Membership of the local societies is generally obtained in return for an entrance fee of sixpence. So profitable has the business become that the Danes send their own eggs to Great Britain, and import eggs from Russia for home consumption, the difference between the price they get for the former and the amount they pay for the latter representing by the end of the year a fairly substantial sum.

Among the many other forms of co-operative organization in Denmark an important rôle is filled by the associations formed for the supply of agricultural necessaries—seeds, feeding-stuffs, manures, machinery, etc—at the lowest price and in the best condition. Here, again, the local societies are formed in turn into large federations. The ramifications of this co-operative purchase system extend to practically every parish in Denmark.

Then the growth of the egg industry has given rise to numerous poultry societies for the improvement of fowls. Some of these societies have a membership of from 2,000 to 3,000 persons. They receive grants from the Government, and their operations are greatly facilitated by experts who devote their time to delivering lectures or giving personal advice to the farmers. Of local bee-keepers' associations there are now sixty in Denmark, with a membership of 5,000 and a central federation which organizes shows, arranges for lectures, carries out experiments, publishes a *Bee Keeper's Journal*, and in other ways promotes the welfare of the bee-keeping industry. Mention must also be made of the large number of societies, operating in every part of Denmark, for the insurance of live stock on co-operative principles, the members being

jointly and severally responsible for the payment of the money to which any one of them may become entitled under the terms of his policy. Some of these societies have up to 7,000 members, and in one instance, at least, animals are insured in a single society to the amount of £1,300,000.

Almost every branch of the agricultural industry is thus represented in Denmark by its separate co-operative organization. Indeed, it may safely be said that whenever a want arises which may be supplied by combination, or whenever there is any possibility of mutual interests being promoted, the Danish farmers are always ready to join with one another in a combined effort to secure what they desire. As a rule each particular co-operative society works on independent lines, for its own special object, so that one farmer may be a member of many different organizations, according to the particular branches of agriculture in which he is interested. It is no unusual occurrence for a Danish farmer to belong to ten local co-operative societies, besides other bodies formed for the advancement of the agricultural interests of the country. The general network is completed by a number of agricultural associations whose function it is to arrange for the holding of shows; to distribute

prizes to agricultural labourers for the efficient management of small allotments; to carry on field experiments; to organize parochial agricultural societies; to assist in the work of the Government experts; to arrange tours of inquiry, whether in Denmark or in foreign countries, by parties of Danish farmers; to secure the improvement of live stock, especially cattle and horses, or to watch over the milking qualities of milch cows. Of these further societies, which are also essentially co-operative in their action, there are over 100, with a membership of 65,000. They are in receipt of subventions from the State to the extent of close on £10,000 a year.

Yet another group tending to the progress of agriculture is represented by associations of agricultural labourers which, among other objects, endeavour to promote the practice by them of the smaller industries—such as the keeping of fowls and the cultivation of fruit and flowers—and aim also at the improvement of home life, the encouragement of thrift, and the advancement in other ways of the interests of labourers. The attainment of these various purposes is sought by the holding of meetings and re-unions (which in themselves exercise a wholesome influence on social life in the villages), by the giving of lectures on agricultural

subjects, by the opening of savings banks, and by helping the labourers to obtain employment in case of need. Of such societies as these there are in Denmark 270, with a membership of 12,000. The smaller societies form groups among themselves, and these groups in turn are connected with large central federations, so that there is maintained among the agricultural labourers of the country a bond of union and of combined effort which compares with that existing among the farmers themselves.

For technical details as to the actual working of these varied forms of agricultural combination the reader who is interested therein cannot do better than consult a *Report on Co-operative Agriculture and Rural Conditions in Denmark*, prepared by the members of a deputation sent to that country by the Department of Agriculture and Technical Instruction for Ireland, and issued by the said Department from its headquarters in Dublin in the autumn of 1903. Here I can now only add to the general outline given above the assurance that the resort to all this co-operative effort has brought about in the economic conditions of Denmark changes that have been almost revolutionary in their character. Not only has it effectually checked the serious consequences that seemed to be impending as

the combined result of agricultural depression and national disaster, but the general position of Denmark to-day is one of greater prosperity than ever, for the Danes are deriving more advantage from the extremely limited amount of soil they now possess than they got from the land before the dimensions of their country were so seriously curtailed. The margin of gain may often be small, and it might be still less but for the unquestionable energy, foresight, and perseverance of the people ; but the general prosperity of the Danish people as a whole is beyond dispute, and the one all-important factor in bringing about that result has undoubtedly been the development of the agricultural interest.

CHAPTER IV

GERMANY

UP to a few decades ago Germany was mainly an agricultural country, and not only provided what food supplies she wanted for herself, but had a substantial surplus to send elsewhere. Since then, however, the industrial interests of the Empire have developed so rapidly that they constitute a formidable rival of the agricultural interests at home, just as they are the recognized rivals of manufacturing countries elsewhere. So between Agrarians and Industrials in the German Fatherland there is an unceasing strife. The industrials are draining more and more labour from the country districts into the towns, and they look with comparative unconcern on the fact that Germany is now importing, rather than exporting, food supplies, declaring, as they do in effect, that all this is to the real interest of the people, inasmuch as the expansion of manufactures will be more profitable to the nation than the concentration

of too much energy on the cultivation of the soil.

Following on these changing economic conditions, together with the altered political situation to which they give rise—a situation that has no exact counterpart in Great Britain—came from Germany that same falling off in agricultural prices which affected our own agricultural classes so seriously when the United States, Canada, Denmark, Australasia, Russia, and other countries joined in the scramble for the conquest, more or less, of the world's food markets. It is true that the agriculturists of Germany had the advantage, from their own point of view, of a Government willing to raise up tariff barriers for their protection, and to this extent they had a greater chance of preserving their own considerable home markets for themselves than was the case with agriculturists in free-trade England; but, even with this said advantage, it is extremely improbable that agriculture would have held its own in Germany in the way it has done had not some very special efforts been made for the still further development of her own particular interests.

One of the fundamental reasons for the results actually attained is, undoubtedly, to be sought in the thoroughgoing system of agricultural in-

struction that prevails in Germany. The original founder of this system (as related in a *Report on Agricultural Instruction in Germany*, prepared by Dr. Frederick Rose, His Majesty's Consul at Stuttgart) was a certain doctor of medicine, Thaer by name, who, in 1802, converted his small property at Celle, near Hanover, into an experimental estate and farming academy. He had made a study of German and foreign agricultural literature, especially in regard to the influence of chemistry upon agriculture, and he had "benefited greatly by the superior methods then prevailing in the United Kingdom"; but he had sought in vain for a practical system, based upon the results of scientific research, by which agriculture could be brought to a higher degree of productiveness, and so he started an academy of his own.

From these small beginnings of 100 years ago agricultural instruction has so far extended in Germany that it is now divided by Dr. Rose into the following categories:—

Advanced:

1. Independent agricultural high schools.
2. Agricultural institutes at the universities.
3. Other higher agricultural institutes.
4. Special lecture courses for advanced owners, managers, and farmers of large estates, etc.

Secondary:

Agricultural schools.

Elementary:

1. Farming schools.
2. Agricultural winter schools.
3. Special lower agricultural schools.
4. Rural improvement schools.
5. Special courses of lectures.

For details respecting all these various phases of the system, and the courses of instruction followed, I must refer the reader to Dr. Rose's own report. Suffice it here to say that Dr. Rose, in summing up the general situation, tells us that the whole system of secondary and elementary agricultural instruction in Germany, in its principal aspects, was organized during the second half of the nineteenth century, and he adds: "At the present time in Germany there is no branch of agricultural production for which special facilities for instruction are not provided."

There may be individuals among the agricultural community who will say, "What is the use of all this instruction? Our fathers and grandfathers prospered without it, and we should do the same if we were only assured of better markets." But agricultural research and instruction have brought about great results in Ger-

many, for, among other things, they have opened up to the farmers of that country markets which they would certainly not have had without them. One can hardly exaggerate the benefits derived from the discoveries, for example, of agricultural chemistry in regard, not only to the application of artificial manures, but to the use of agricultural products in various industries. On the former point there is no need to speak here in detail, but in regard to the latter there are some interesting facts that can be given.

No fewer than 14,000,000 tons of beetroot, representing a value of £12,600,000, are used in Germany in the course of a year in the manufacture of sugar, and the production of these supplies for an industry that is the direct outcome of scientific research is a valuable set-off against possible depression in other branches of agriculture. But still more remarkable are the enormous crops of potatoes grown in Germany, and the various purposes to which they are applied. In 1901 the total production there was over 48,500,000 tons, of which about one half would be used for other purposes than human consumption. The Germans themselves are great potato eaters; they find it cheaper to feed their cattle, pigs, sheep, and poultry on raw or steamed potatoes than to depend on imported

maize; while desiccated potatoes are now extensively used as an article of diet in the German Army and Navy. But chemistry long since showed that there were other uses, besides those of direct food supplies, to which the potato could be put. Most people are aware that alcohol is distilled from potatoes, but it may be less generally known that in Germany there is a great industry in the production from potatoes of a spirit used for driving motors and engines, for lighting, both in the public streets and in private houses, for heating, and also for cooking. In the course of a single year a total of 2,000,000 tons of potatoes, valued at £2,500,000, will be used for distilling purposes alone, the residues constituting a valuable food for cattle. For potato starch another 2,000,000 tons a year will be used, and of this starch the United Kingdom imported in 1901 close on 24,000 tons. Other products of the potato are starch syrup, starch sugar, dextrin, and potato flour. Germany's total export of potato flour and starch in 1901 amounted to 46,000 tons, nearly double the quantity for the previous year, and her export of dextrin was 14,000 tons.

One gets here some concrete and very practical examples of the help that scientific teaching may render to agriculture by promoting, among

other things, the greater utilization of farming products for economic as well as for food purposes, and there is clearly abundant justification for all that Germany has done in this direction. But in the particular situation in which the German agriculturists found themselves placed in their time of depression, there was more to be done than could be comprised in even the most elaborate scheme of technical education. Science could tell the farmer what it would pay him best to produce, and how to secure big crops; but it left him to his own resources in the way of raising money, and of selling his crops to the best advantage. It was in these circumstances that he turned his attention to the possibilities of co-operation, and soon the fact was recognized that agricultural co-operation was an indispensable sequel to agricultural instruction. Co-operation has, indeed, been described by an authority on the subject as "the German farmer's stronghold and bulwark," and no one who is acquainted with the facts will fail to admit the aptness of the description.

It was in the matter of finance that the adoption of the co-operative principle assumed one of the earliest and most practical of its varied forms in regard to German agriculture. Falling prices and other adverse circumstances had so

far decreased the available funds of the farmers that it was difficult enough for many of them to carry on their ordinary operations in their ordinary way, year by year, without embarking on those wider undertakings or those more costly methods which agricultural science was opening out to them. In these conditions it often enough became a matter of urgent importance to the farmer that he should raise a loan which would enable him to carry on until he obtained a return from his crops. Such a loan might make all the difference between comparative success and absolute failure. But while the ordinary banks were ready enough to advance money to a landowner who could give them a mortgage on his estates, they were reluctant to make advances to individual farmers on nothing but their personal security, and their reluctance increased in exact proportion to the growing needs of those who wished to borrow.

The way out of the difficulty was found by a resort to the co-operative credit bank system, under which the joint credit of the whole of the members of an association is used for the purpose of borrowing money. The savings and credit banks of this type founded by Schulze-Delitzsch, at the end of the forties, aimed at promoting the interests of the labouring, artisan,

and trading classes in general, rather than of the agricultural classes in particular, and they operated on a wide basis, without any restriction as to locality. The Raiffeisen banks, on the other hand, are essentially local in their character, each dealing only with its individual members in the district in which it has been set up; so that any individual seeking to borrow money from the bank is likely to be known alike to the manager and to the majority of the other members. Then the direction of the Raiffeisen banks is purely honorary, being controlled by a committee of the shareholders, who receive no remuneration, and loans to local residents are made only under clearly defined limits; whereas the administration of the Schulze-Delitzsch banks are paid for their services, and the loans are practically unlimited, according to circumstances.

The banks formed on the Schulze-Delitzsch principle have been taken great advantage of by the agricultural as well as by the industrial community of Germany; but it is the Raiffeisen system, with its more thoroughly co-operative basis, that has especially commended itself to the German farmers. Its fundamental principle, not simply of co-operation, but also of the unlimited liability of the members, has been much criticized, and of late the tendency in Germany

has been to modify this principle so far as to place a certain limit to the liability of individuals in the starting of new banks. On the other hand it is claimed on behalf of the Raiffeisen institutions of Germany that there is no instance on record of a member having suffered from the enforcement of the rule in question. It is argued that the existence of such a rule makes the members careful to advance money only to those whom they know to be trustworthy, and it is the very essence of a Raiffeisen bank that it should operate in some village or small town where everybody is known to everybody else.

A brief experience convinced the pioneers of the Raiffeisen bank movement that it was not sufficient to put an easy credit within the reach of the small cultivator. It was found that he needed guidance in the spending of the money as well. Hence the banks, in addition to receiving deposits and advancing loans, took up the business of ordinary purchasing societies as well—a procedure which excited a certain degree of hostility on the part of the purchasing societies, which, in their turn, started agricultural credit banks on their own account.

Of Raiffeisen banks in Germany affiliated to the central institution at Neuwied there are now

4,000. Of co-operative credit banks in general there are 4,455 in Prussia, and 3,899 in other German States—a total of 8,354, representing a membership of close on 1,500,000. Some States will have co-operative credit banks in over 33 per cent. of their parishes, and 50 per cent. of the farmers in those parishes will be members. As for the good that has been done by such institutions, Mr. F. P. König says, in a report on "Agriculture in Germany," issued by the Foreign Office: "It has always been a puzzle to me why English farmers do not club together and form similar co-operative banks for the benefit of all concerned. Co-operation has proved to be the key to success in Germany, and has saved many thousands of farmers from ruin."

But there are many other directions in which the combination principle has been applied to agriculture in Germany, besides the setting up of credit banks. Of special agricultural societies for the purchase of artificial manures, feeding-stuffs, machinery, tools, coals, etc. (in addition to what the banks may do in this direction), there are 426 in Prussia and 578 in other German States—a total of over 1,000. Of production and selling societies (representing, among other branches, societies for the sale of seed, fruit, vegetables, and produce of all kinds;

silo societies; the German Spirit Syndicate; and societies for the sale of cattle) there are 553 in Prussia and 116 in other German States—a total of 669. Of dairy produce societies there are 1,261 in Prussia and 421 in other German States—a total of 1,682. ("As the co-operative system of dairying has increased in Germany," says Mr. König, "dairies have almost sprung up as fast as mushrooms.") Then most of the factories established of late years in Germany, and especially in Saxony, for the production of sugar from beetroot, have been set up on the co-operative system, the farmers who grow and supply the beetroot either starting the factories themselves, or else holding shares in factories established by limited liability companies. "The cultivation of sugar beet in Germany," Mr. König remarks, "has made many a man's farm pay, which previously was only kept afloat with difficulty; and when such a man, in addition to growing beetroot, has a share in the co-operative factory in which it is turned into sugar, he naturally gets a double advantage."

The total amount of the purchases of agricultural necessaries effected by the German credit banks, or by the special associations for that purpose, during 1902, is stated by the annual report of the German Confederated

Co-operative Societies for that year to have been £3,500,000.

Co-operation, again, has been extensively resorted to in Germany in the formation of societies for drainage and irrigation, and especially for the purpose of reclaiming bogs and moorlands. The amount of land so reclaimed in Germany between 1878 and 1893 is estimated at over 700,000 acres, and much of this land, on which nothing but heath had grown before, now ranks as among the most productive soil in the Empire. Still another resort to agricultural co-operation in Germany has been in regard to the use of machinery. Recent statistics show that steam threshing machines are used there on no fewer than 35,000 farms of less than five acres each. Without co-operation such a thing would be altogether impossible. In some instances the farmers of a particular district will organize a society for the purchase of a steam-plough, letting it out on hire to their neighbours when they are not using it themselves. Then in the wine districts of Würtemberg the smaller growers—mostly peasants—will have co-operative societies for establishing cellars where the wine juice can be kept until it ferments, better prices being thus obtained when it is sold.

The local agricultural co-operative societies in Germany are supplemented by agricultural unions, great and small, which have been a material factor in improving the general position. In the report already referred to, the British Consul at Stuttgart says, respecting these unions:—

They are devoted to the collection, utilization, and propagation of the agricultural knowledge and experience gained by theory and practice, and to the furtherance of the interests of agriculture in its commercial and economical aspects. . . . The great measure of success which has hitherto crowned the efforts of the agricultural unions is principally owing to the method of organization, which seeks to unite all the different branches into large and powerful corporations with well defined and similar objects. Beginning with the small local unions, there follow branch, district, and county unions, all these being united together in the central and provincial agricultural corporations of the smaller States and provinces. These are again united into the highest agricultural corporations of the larger States, which often possess a semi-official character—for instance, in Prussia the Land Economy Council, in Bavaria the Agricultural Council, in Saxony the Land Cultivation Council, and so forth. The apex of the whole organization and the highest condensed expression of German agricultural wishes is embodied in the Imperial German Agricultural Council. In addition to these semi-official representative agricultural bodies, there exist other special associations which have been formed for the purpose of furthering the interests of special branches of agriculture or agricultural industries.

One of the bodies in question, the German Agricultural Association, has a membership of 13,000, and the 237 associations in Bavaria have a membership of 56,000. Organizations such as these ought, therefore, to exercise a considerable influence, not alone on the economic, but also on the political, position of agriculture in Germany, and such has undoubtedly been the case there in regard to recent legislation.

From some notes contributed to the *Journal* of the Department of Agriculture and Technical Instruction for Ireland, for December, 1903, on "Agricultural Co-operation in Germany," by Mr. H. de F. Montgomery, I learn that the total number of registered Agricultural Co-operative Societies in the German Empire on July 1st, 1903, was 17,162. This figure included 678 new savings and credit banks formed during the previous twelve months (569 with unlimited, and 109 with limited liability), and 151 miscellaneous societies, among which were the following:—

Societies for the purchase of Steam Threshers	35
„ „ sale of Cattle	22
„ „ „ Corn	4
Wine-growers' Societies	18
Cattle-breeding Societies	10
Horse-breeding Societies	7
Egg and Poultry Societies	13

Distillery Societies	3
Irrigation Societies	2
Electricity Societies	2
Jam Factory Societies	2
Steam-plough Society	1
Fruit Society	1

Quoting from a report drawn up by Dr. Haas, chairman of the Union of Agricultural Co-operative Societies in Rhenish Prussia, Mr. Montgomery also mentions a parish of 1,600 inhabitants in Hanover which can boast of five flourishing agricultural co-operative associations, a savings and credit bank, an agricultural supply society, a dairy society, an egg society, a milling society, and a society for the sale of cattle.

What, therefore, with her very practical and comprehensive system of agricultural education, her elaborate development of an easy and most effective agricultural credit, and, finally, her great variety of agricultural co-operative associations, Germany may well claim to have re-organized the position of the cultivators of her soil in a way that has brought to them a measure of success, and to herself a degree of economic advantage, that would have been impossible if, when they were threatened with agricultural depression, they had clung tenaciously to old ideas and antiquated methods.

CHAPTER V

FRANCE

TO the agriculturists of Great Britain, accustomed to regard the condition of their industry as one of almost hopeless depression, there must appear to be something remarkably strange in some observations made by M. Méline at a gathering held at the Musée Social, Paris, on October 31st, 1897, when the results of a competition among the Syndicats Agricoles of France were announced. "It is," said the French Minister of Agriculture, "a curious fact, and well worthy of remark, that you agriculturists have nothing to learn from those you have called to meet you here. It is from that world of agriculture which for so long seemed to be given over to a spirit of inveterate routine, and to be deprived of all initiative, that there has proceeded the spark which should regenerate the modern world. It is the agricultural interest which has been the first to understand and apply the grand formula of solidarity and mutuality

which contains the true and only solution of the social problem. It is from that interest that proceeds the immense movement which is in process of development on all points of our territory, and which, to-day, has only begun."

It was of the agriculture of France alone that M. Méline thus spoke, and his special reference was to the particular form of agricultural association that the said "Syndicats Agricoles" represent. That these organizations are deserving of the full measure of praise which has been lavished upon them by the most enthusiastic of their promoters may be open to a certain degree of doubt, for the position of agriculture in France to-day offers this striking contrast: that whereas in many respects combination among the agriculturists has attained to a fulness and a variety of development not to be surpassed by any other country, France is, on the other hand, distinctly behind Denmark and Sweden in regard to dairy produce, just as she can show nothing to compare with some of the co-operative agricultural associations of Germany.

These limitations notwithstanding, the vast and extremely varied network of agricultural combination in France represented by these Syndicats Agricoles, and the material, economic, and social results that have followed from them,

present a subject deserving the special consideration of those who are in any way interested in the question of agricultural progress in general.

The historian of the movement, M. le Comte de Rocquigny, has given in *Les Syndicats Agricoles et leur Œuvre*, a striking account of the conditions under which it was initiated. Towards the year 1884, (he writes):—

After having enjoyed a long period of prosperity, our agricultural producers began to suffer experience of which no one could see the end. The French market, which, by reason of the development of the means of transport, was no longer protected by the natural barrier of distance, began to be flooded with foreign commodities produced at a cost that defied all competition. Our lands, exhausted by centuries of cultivation, had no chance against the productions of virgin soils, or of countries more favourably situated in regard to taxation, cost of labour, etc. The wheat of North America, India, and Russia, the wool of Australia and La Plata, the wines of Spain and Italy, and even the cattle of Italy, Germany, the Argentine Republic, etc., took, little by little, on our markets the place of our home supplies, and the simple threat of their being imported was sufficient to effect a lowering of prices. . . . The national market existed no longer, and on a market which had become universal, and was affected by the slightest fluctuations that reverberated among the great centres of the world, the French cultivator offered an easy prey to the speculations of international commerce.

These new economic conditions, which there was every reason to regard as permanent, imposed on the agricultural industry a profound evolution.

It was necessary to organize for the struggle, to realize promptly all the possible opportunities for progress, to decrease the cost of production, and to improve the methods alike of production and of sale. For the attainment of these ends the old agricultural associations were but ill-prepared. It no longer sufficed merely to spread technical knowledge and to give prizes and awards to agriculturists at periodical exhibitions.

In reading these remarks it is impossible not to be struck by the similarity between the conditions thus developed in France and those that arose in Great Britain—a country that was, in fact, still more open to "the speculations of international commerce"; and the conclusion must be drawn that there was as much need for foresight and energy to be shown in this country, in the way of organizing for the coming struggle, as was the case in France.

There, at least, the new economic conditions were met in a way that was eminently practical, though the very small beginnings offered no suggestions of the great things that were to follow later on. A certain M. Tauviray, departmental professor of agriculture at Blois, found in the early eighties that there was great difficulty in getting the agriculturists to use for their impoverished lands the fertilizers which agricultural chemistry was offering to them; but he saw, also, that their reluctance was not unnatural.

Apart from the ignorance and the prejudices of the farmers in respect to the use of artificial manures, the producers thereof, having to send out travellers and push a business then far from active, charged high prices, and, what was still worse, sent out adulterated or inferior qualities. M. Tauviray's happy inspiration was to get all the farmers in a certain district to join together in sending in one big order, by means of which they would be able to purchase at a less price, get lower railway rates, and, also, be in a better position to secure a guarantee of quality. A combination with these objects in view was brought about in 1883, and when, in March, 1884, organizations of this type acquired a legal status in France, many more of such purchase associations followed. The use of the fertilizers was found to yield increased crops at a reduced cost, and the operation of the new syndicates obviated all the difficulties previously experienced. So the movement for the establishment of agricultural syndicates spread, in course of time, throughout the whole of France—though they were more numerous in some parts thereof than in others—while in proportion as their utility was more and more recognized, the scope of their activity widened. Seeds and feeding-stuffs were purchased in wholesale lots,

the same as fertilizers. So were tools and agricultural appliances of various kinds, while special syndicates either procured agricultural machinery too costly for individual farmers to get for themselves and let it out on hire, or enabled farmers to purchase on special terms.

In these and other ways there was, in the first instance, a direct appeal to the material interests of the agriculturists. Other considerations were to be advanced later on, but the leaders of the new movement had the good fortune to win the early sympathy of the farming community by the offer of practical advantages which prepared for further considerable developments of the combination principle a class of men who, in France, as in England, might well be regarded as the least likely to co-operate for the achievement of a common purpose.

By 1886 there were already so many of the new type of associations in existence that a "Union Centrale des Syndicats des Agriculteurs de France" was created through the intermediary of the Société des Agriculteurs de France, which society was formed in 1868, and has 12,000 members, but represents a body of a more academical type than the syndicates, though it is one that has done much for the promotion of the agricultural interests of the

country. The Union Centrale has not secured the adhesion of all the agricultural associations throughout France, but it represents 1,126 of them, with a membership estimated at 350,000, and its annual conferences in Paris may be regarded as the Lower House of a French Agriculturists' Parliament, the Upper House being the Société des Agriculteurs. When the resolutions adopted by the one body have been approved by the other, and passed on to the Ministers or other authorities, they represent a weight of agricultural opinion to which there is nothing to correspond in Great Britain.

The Union Centrale in Paris has been supplemented by forty provincial and other minor federations. Most of these also hold annual conferences, at which, as in Paris, questions affecting all kinds of agricultural interests are discussed. Nor are the views of such provincial unions to be despised, considering that the Union du Sud-est, for example, alone comprises 303 affiliated associations, which have a total of 80,000 members. According to the *Annuaire des Syndicats Professionnels*, published by the Minister of Commerce, the number of agricultural associations in France whose formation had been officially notified up to January 1st, 1903, was 2,433, and the total membership was

599,000. Included in this total were 6,238 women.

In the same year that the Union Centrale was formed there was also established a Syndicat Central des Agriculteurs de France, which opened an office in Paris (1) to facilitate the sale of agricultural products; and (2) to further group the orders for agricultural necessaries collected and combined by the different federations of syndicates from the individual associations, purely commercial purposes such as these being considered beyond the scope of the Union Centrale. No great degree of success has been obtained by this Syndicat Central in regard to the sale of agricultural products, but the purchases it effects amount to about £2,000,000 a year. This, however, does not represent anything like the sum total of the business done by the associations as a whole, many of them purchasing through their provincial unions, or grouping their orders locally. There are twenty-five associations alone whose purchases represent a grand total of £900,000; and it is calculated that the money spent by the whole of the associations would amount to £8,000,000 a year.

Such, in fact, is the magnitude of the orders given under the "grouping" system that in certain commodities the agricultural associations

control the markets. They secure a threefold advantage: (1) They get wholesale prices from the manufacturers instead of retail, these prices being made still lower by the fact that the manufacturer, dealing direct with an association or union, incurs less expense for travellers, etc.; (2) the quality has to stand the tests of the association's experts; and (3) lower railway rates are obtained because the consignments are sent to central depôts in waggon-load lots instead of small quantities, as in former days. So the small cultivator who buys a couple of sacks of fertilizers or feeding-stuffs through his association gets just the same advantages in price, quality, and railway rates as a large farmer who orders his five or ten tons. These facilities, combined with the skilled advice given free by the associations, have led to a very great increase in the use of fertilizers in France, and many factories have been set up in that country for their production, while a decrease of from 40 to 50 per cent. has been effected in the prices as compared with what they were before the advent of the agricultural associations. One factory in France which turns out 15,000,000 kilos. the year disposes of 12,000,000 kilos. of that quantity to agricultural associations alone.

Another of the central organizations brought

into existence as part of the general movement was the Syndicat Economique Agricole de France, a propagandist body composed of the most active members of the departmental syndicates, and formed for the purpose of influencing public opinion on agricultural questions by means of publications, conferences, etc., and to conduct, in general, the campaigns by which the views expressed at the representative gatherings of agriculturists might be carried to a successful issue. This body is especially active on the eve of general elections in France, and to its energy is ascribed the original formation, in 1889, of the agricultural party in the Chamber of Deputies.

Mention should also be made of a Syndicat d'Industrie Agricole, the object of which is to assist small cultivators to carry on their holdings by helping them to obtain the necessary implements or machinery, much having been done in this way to improve the conditions under which agricultural operations are conducted, thus stimulating the production.

Besides the associations which seek to promote the interests of agriculturists in general, there are many which apply to special industries. Among these may be mentioned the Syndicat Pomologique de France, founded at Rennes, in

1891, by a group of cider-makers; the Syndicat Général des Sericulteurs de France; the Syndicat des Distillateurs Agricoles; the Syndicat des Eleveurs de Chevaux en France; the Chambre Syndicat Centrale des Horticulteurs; with others organized by market gardeners (especially those who raise early vegetables), nurserymen, the growers of vines, beetroot, tobacco, and medical plants, bee-keepers, etc. Such organizations seek to promote the general interests of the industries concerned by means alike of spreading technical information, grouping purchases of necessaries, facilitating the sale of products, or making joint representation, in case of need, on the subject of market tolls, railway rates, etc.

No better illustration could be given of the way in which combinations of this type are resorted to in France than is afforded by the case of the little commune of Roquevaire (Provence). The place has a great reputation for capers, which constitute its chief production. At one time the inhabitants were content to grow the capers, and sell them to wholesale merchants; but they found that these merchants were mixing with the high quality capers from Roquevaire others of an inferior kind from Algeria and Spain, the fame of the former being thereby endangered. To check this evil the

local growers formed a co-operative association for the purpose of carrying on the trade themselves. Instead of sending the capers to the merchants as before, they employed their own wives and children on the further processes of sorting, pickling, etc., and they opened up negotiations with wholesale houses in England, Germany, Russia, Sweden and Norway, and the United States, establishing a business which now represents a total of about 200,000 francs the year. The experiment answered so well, in fact, that they followed it with another. Considerable quantities of apricots are grown at Roquevaire, as well as capers, and these apricots were formerly sold to makers of preserves at Marseilles. Some years, however, the growers had practically no return from the fruit, and they resolved to no longer send it to Marseilles, but to convert it into preserve themselves, and work up a trade with grocers, confectioners, and others. This they have done, and they calculate that they now secure from 30 to 40 per cent. more profit from the apricots than they ever made before.

Among other special combinations which have grouped producers for the purposes of collective export to the English markets I may mention the following:—Syndicat Agricole du Comtat, Carpentras (Vancluse), strawberries; Syndicat

Agricole de Gaillon (Eure), cherries, pears, etc.; Syndicat Agricole de Quincy-Segy (Seine-et-Marne), black currants, pears, etc.; Syndicat des Viticulteurs de Thomery (Seine-et-Marne), grapes ("raisins de Chasselas," a white variety, chiefly grown at or near Fontainebleau, and celebrated for their sweetness); Syndicat Agricole de Linas (Seine-et-Oise), tomatoes and fruits; "La Syndicale" de Groslay (Seine-et-Oise), fruits and vegetables; Syndicat des Jardiniers de Nantes (Loire Inf.), fruits and vegetables; Union des Producteurs d'Oignons à Fleur (Toulon), bulbs; Syndicat des Proprietaires et Fermiers, Ollioules (Var), bulbs; and the Société Cooperative de Tullins-Fures (Isere), walnuts ("noix du Dauphiné"). To this list I will only add that a large number of associations in Provence make from the olives grown by their members an oil of excellent quality, for which there is said to be a large demand.

The results of collective action in securing for the people advantages that could not have been hoped for from individual effort were so striking in all these various ways that the principle was followed up in many other directions besides. Associations were, for instance, formed for the common defence of crops against different causes of destruction or depredations, among them

being Syndicats de Hannetonage, organized in various departments to wage war against the May-beetle; associations to take precautionary measures against phylloxera; and even, at one time, associations for the protection of vines from frost in the early spring. The last-named result was to be obtained by lighting in the vineyards bonfires in which were burned substances that produced dense smoke, the presence of which, especially on a still night, should serve the same purpose as clouds in preventing the radiation of heat from the ground. Whether because the desired degree of success was not attained, or because the expense was too great, only a few of these particular associations have survived; but the fact of their being started at all shows the readiness of the people to co-operate for the promotion of mutual interests.

Then, in order to still further reduce expenses, so that farmers would be better able to meet the falling prices, various associations started the idea of grouping their members to allow of better terms being made with the fire insurance companies. Such grouping meant for the companies not only, as it were, "wholesale lots" of policy-holders of an especially desirable type, but the incurring of less cost in the collection of premiums; and where the associations could deal

direct with the insurance companies they were enabled to arrange substantial reductions for their members. In those cases where the middleman, in the form of an agent, was not to be dispensed with, the association got itself recognized as a sub-agent, the agent proper consenting to a reduction of his commission because he was saved a good deal of labour. In the same way agriculturists were encouraged to ensure more freely against accidents, and eventually there was formed a "Caisse Syndicale d'Assurance Mutuelle des Agriculteurs de France contre les Accidents du Travail Agricole," dealing exclusively with members of agricultural organizations. Special combinations were likewise formed for the insurance of live stock and for the insurance of crops against hail.

The fundamental idea of the agricultural combination thus spread throughout the land—that, namely, of "helping one another"—received a still wider expansion in the formation of what were practically Farmers' Mutual Aid Societies. This phase of the general movement was started in 1888 by the Syndicat Agricole du Canton de Belleville-sur-Saône, which arranged that whenever one of its poorer members fell sick, or met with an accident, the others should each do a day's work for him, in turn, on his

farm or holding. Other associations did the same, and then, as they accumulated funds, they provided their members with medical attendance and financial help, they established a system of old-age pensions, and they also made provision for the support of orphans.

To the educational work carried on by the agricultural associations a considerable degree of importance must be attached. From the very outset they sought not only to enable farmers and small cultivators to purchase fertilizers, but to instruct them thoroughly concerning their use and purpose. In this way it was that they began their work of promoting the higher education of the French agriculturist. They continued it by issuing periodicals and almanacs, to which the leading authorities in agricultural science sent contributions written in popular style; they published text-books and established libraries; they engaged professors of agriculture who delivered lectures, gave free consultations, carried out analyses, and directed experimental farms; and they have followed up with much zeal a movement started in Brittany, in 1892, for giving elementary instruction in agricultural subjects in the primary schools, certificates and diplomas being awarded to the children who pass examinations therein.

From a social standpoint it is claimed that the associations have done much to strengthen the feeling of a community of interests between the different classes in rural districts, to invest country life with increased attractions, and to widen the expanse of the agriculturist's horizon in general. Most of the associations are of what is known as a "mixed" type—that is to say, large landowners and small occupiers, farmers and agricultural labourers, will all be members of the same organization, and meet in friendly intercourse to discuss subjects of common interest. People have thus been brought together who previously may have been strangers or even more or less enemies. In the relations so established is seen, in addition to other advantages, one of the greatest safeguards against the spread of socialistic doctrines in rural France, and one of the best possible guarantees alike for friendly settlement of any question that may arise between the various classes, and for the general maintenance of social peace. Many of the associations have even established boards of conciliation and arbitration by which disputes among their members can be arranged; and many, also, have supplemented their help to the indigent sick, their old-age pensions, and their maintenance of orphans, by opening labour bureaux

where every facility is offered to unemployed agriculturists to get work. The meetings of the associations, and especially the annual conferences of the unions and the banquets that follow them, afford an agreeable change to the generally dull routine of country life. Even the weekly visits to the market towns have in many places been invested with greater interest by the provision of comfortable rooms where members of an association can go with their wives and children (should these be with them), meet one another, rest and refresh, and hold friendly conference on questions of mutual interest.

All these things are helping to render rural life in France pleasanter and more attractive, at the same time that the material considerations already detailed have distinctly improved the agricultural outlook in general. And yet, the organization movement in that country is still incomplete, especially if we compare the conditions of the French dairy industry with those of the same industry in Denmark.

A certain number of syndicates have, it is true, been formed in France for the carrying on of co-operative dairies on the Danish model, and these are especially to be found in the

Charente districts, on the west coast, substantial quantities of dairy produce being sent thence to the Paris markets. As regards, however, most of the butter exported to Great Britain, the methods in vogue are still mainly those that Denmark abandoned a quarter of a century ago. Each farmer makes his own particular lot of butter, and takes it to the local market. There it is bought by a commission agent, and he in turn disposes of it to the wholesale merchant, who thus receives into his "blending mill" the dairy produce of a wide district, representing, it may be, a considerable number of different "makes" of butter. Expert employés will sort out the purchases into five different classes, and the quantities representing each class will then be worked up afresh and blended together, so as to present a uniform quality. All this is, of course, very different from the Danish system, under which the farmers bring in their milk to a central depôt, where the cream is separated from it, the butter as exported being produced in one operation from the combined supplies.

In Denmark, too, the farmers get most of the profit for themselves, whereas in France the farmers are not only put to greater trouble and expense, but they must be content with

a very modest return, because the middleman maker wants his profit as well, and because of the further cost of production necessitated by the blending mill operations. Before Denmark secured so strong a position on British markets, the French butter exporters made large fortunes from the business. The opportunity came with the Franco-German War, which closed the Paris markets for a time, and caused them to look for an alternative outlet in Great Britain—a procedure which answered so well that in some instances the present-day representatives of butter-blending mills, originally started in a very small way, are owners of châteaux, and are locally regarded as "butter-kings," while the French farmer still drives to market with his weekly tub of butter, regarding his commercial rulers with the greater awe, perhaps, because he may be indebted to them for pecuniary advances made to him in times of need.

Of the adaptations of Danish methods which have, thus far, been brought about in France, one of the most interesting is at Cherbourg. An English firm, with the help of a Danish manager, has there set up a factory in which the cream is separated from the milk obtained from 385 farmers in the surrounding district. After being pasteurised, and having a preserva-

tive added, it is despatched by the London and South Western Railway Company's boats to Southampton, *en route* for London, the output of the factory representing from 200 to 300 gallons of cream a day.

This concern is not a co-operative one, but it nevertheless illustrates the important fact that even where, in France, there is no actual co-operation among the agriculturists, there may still be such a grouping of products gathered in from a wide area as to eventually represent very large quantities to be consigned by a single firm or trader, instead of a multiplicity of small lots forwarded by individual producers; and from the point of view alike of the railway companies, in their charge for waggon-loads, and of the British grower who sees huge consignments of foreign produce passing his doors, the point as to who are the consignors of such loads is a matter of detail. It may be of interest if I give one or two more illustrations of how, even without direct co-operation, these huge consignments may still be got together.

In regard to eggs France is distinctly behind Denmark in her system of collection and export, and this may be one reason why, as already mentioned in Chapter II., French consignments of eggs to this country have fallen off so much

of late years. But, if her methods are primitive, they show a degree of enterprise on the part of her people which is deserving of commendation. In Brittany, for example, every peasant keeps fowls, whether he has any land or not, and these fowls play the rôle of the Irish tenant's pig in helping to pay the rent. Nor has the peasant of Brittany any trouble in disposing of the eggs. There are women and boys who make a regular living by going round the country collecting eggs at the farms and cottages. They start in the morning with a certain sum of money in their pockets, and a wooden crate for the eggs fastened on to their shoulders by means of webbing; they tramp along lanes and paths which would be impassable for horses and vehicles, even if they could afford such luxuries; they call on the peasants on appointed days, when they know that a little collection of eggs will be awaiting them; they pay ready money for what they buy, and they bring a good quantity of eggs back with them in the evening, selling them, at a profit of one halfpenny a dozen, either direct to the packer at St. Malo, or to a local tradesman who drives periodically to that port, and will take the eggs with him, himself making a profit on them. The packer examines each egg, rejecting those that are doubtful,

grades them, and makes them up in cases for export. The business organized on these lines brings, in the aggregate, a substantial sum of money to the peasantry of the district.

Still more striking is the story that can be told concerning blackberries. A ton of blackberries, all picked from hedges in the fields or along the country lanes, will appear a prodigious quantity to the average householder, and a record seemed, indeed, to have been reached a few years ago, when 150 tons of blackberries were exported from St. Malo to England. But that figure is entirely overshadowed by the fact that during the autumn of 1903 the total quantity of blackberries sent from St. Malo to this country was no less than 773 tons! Even then the supply was not equal to the demand, in a season when fruit was exceptionally scarce. One English dealer alone telegraphed to St. Malo saying that he would take 200 tons of blackberries, if he could get them.

By what means are these hundreds of tons of blackberries got together in this one particular corner of France? There is no horticultural syndicate there to promote the culture of blackberries, or to organize the sale thereof; but those said tons are collected and sent off all the same, the persons chiefly concerned being women

and children. The peasantry throughout Brittany know that there is money to be made by picking blackberries to send to England, and every few days during the season—especially on Thursdays, the school holiday—the women and children of a household will turn out with their tins and basins, and gather what blackberries they can. These they put together, and take in the afternoon or evening to some village tradesman —no matter in what line of business he may be—who owns a horse and trap, and has dealings with St. Malo. The tradesmen will give at the rate of about eight centimes a pound for the blackberries, and as every centime has its value in the eyes of the essentially thrifty French peasant, the money thus earned represents an acceptable addition to the weekly income. As for the tradesman, when, probably, most of the families in the village are out collecting, he may expect to have a good supply by the evening to take to the wholesale exporter at St. Malo, from whom he will receive a price that gives him about two centimes per pound profit.

Applying this method of collection to practically every village or hamlet within a radius of, say, a dozen miles of St. Malo, one will cease to wonder how it is that the French wholesale fruit merchant manages to get together blackberries

by the ton for consignment to the English market. As for the peasantry, their receipt of eight centimes per pound for picking 773 tons of blackberries during the season means that the business put into their pockets no less a sum than £5,541. The average price at which the St. Malo exporter sold to the English merchant ranged from £10 to £12 per ton, though some of the consignments realized as much as £14 per ton. Even taking the lowest of these figures, one finds that during the autumn of 1903 a sum of £7,730 was paid for blackberries brought to England from a single French port.

The question may well be asked why this money should have gone to France when in Cornwall and other parts of our own country there were blackberries equally fine that were left to rot on the bushes, either because people would not go to the trouble of picking them, or because there was no one enterprising enough to carry out there the method of collection that answers so well in France.

The answer that "distressed agriculture" would probably make is, "Oh, the railway rates in England are so high that the business could never be made to pay." In anticipation of such a reply I have asked the General Manager of the London and South Western

Railway to favour me with a statement showing the rates charged by his Company for the carriage of blackberries from (1) St. Malo to London, and (2) from stations in Devon and Cornwall to London. He has furnished me with the following figures:—

(1) Rate (including delivery) for the transport of blackberries from St. Malo to London: £2 0*s.* 2*d.* per ton.

(2) Rates (including delivery) from stations in Devon and Cornwall to London, in respect to consignments above those represented by "smalls":—

FROM	MILES.	3-TON LOTS.	2-TON LOTS.	1-TON LOT.	LOTS UNDER 1 TON.
		Per ton. £ *s.* *d.*	Per ton. £ *s.* *d.*	Per ton. £ *s.* *d.*	Per ton. £ *s.* *d.*
Bere Ferrers (Devon) .	221½	1 10 10	1 12 6	1 14 2	1 15 10
St. Budeaux (,,) .	225¾	1 10 10	1 12 6	1 14 2	1 15 10
Holsworthy (,,) .	216¼	1 10 10	1 12 6	1 14 2	1 15 10
Launceston (Cornwall)	222¼	1 11 8	1 13 4	1 15 0	1 16 8
Camelford (,,)	239½	1 13 4	1 15 0	1 16 8	1 17 6
Wadebridge (,,)	252¾	1 13 4	1 15 0	1 16 8	1 18 4

It will thus be seen that if the traffic is sent from Devon or Cornwall in any quantity above "smalls" it is carried at a more favourable rate than from St. Malo; while if it is sent in large quantities, such as three tons, it gets the benefit of from 9*s.* 4*d.* to 6*s.* 10*d.* per ton. The "exces-

sive railway rate" theory falls, therefore, entirely to the ground, and the real reason why French blackberries are put on the London market instead of English is, evidently, that our neighbours will take the trouble to pick them, and make the very simple arrangement necessary for sending them in, while English people fail to show the same amount of energy and enterprise, and content themselves, rather, with cherishing an imaginary grievance against the railway companies.

Gooseberries are collected in the villages around St. Malo in a somewhat similar fashion, the peasants who have a few bushes in their gardens disposing of the fruit to a local tradesman, who, when he has gathered in a good supply, will dispose of it to the wholesale dealer, getting Fr. 1 50 c. per cwt. on delivery, which is at his own expense.

Then the growing of early potatoes in France has assumed such a magnitude that the trade therein done through the port of St. Malo alone represented in 1902 a total of over £200,000. It is no wonder that a year or two ago a St. Malo merchant, in addressing a meeting of agriculturists at Dol, advised them to cultivate potatoes on every available acre. The export from St. Malo to Southampton amounts, in the height of

the season, to as many as 1,000 tons a day, so that complete train-loads of French potatoes can be made up at Southampton for transit to London. At the same time there will be two boat-loads a week, representing up to 200 tons each, going from St. Malo to Hull, and one a week to Cardiff. All around St. Malo the cultivation of new potatoes as an early crop is followed by cauliflowers, of which every year larger quantities are being produced, and it is found that the farmers will readily drive into St. Malo with their produce, although their farms may be twelve or fourteen miles from that port. One further consequence of all these conditions is that agricultural land in the district has doubled in value.

Of Cherbourg Mr. M. C. Gurney wrote a few years ago, when he was British Consul there:—

> This district owes its prosperity to the soil, to a wise selection of its capabilities, and development of all its resources, no section of agricultural industry being considered too insignificant to receive careful attention. No part of the dairy and the farmyard, however small the profits which can be made to swell the total income, is neglected. It is sad to acknowledge that the main source of local prosperity is due to the inability of British agriculturists to supply the need of the millions of consumers in our Metropolis and our large provincial towns, which

afford a never-failing market to the produce of Normandy enterprise and industry in the shape of butter, poultry, eggs, potatoes, and vegetables. . . .

Farmers in this district have realized that Europe can no longer be a wheat-growing competitor of the new worlds. Protective tariffs have not procured for them remunerative prices, though they have prevented a further fall. . . . The advice given to farmers to give up cereals for permanent pasture is considered to have been the saving of the farmers of La Manche, who one and all followed the advice given. . . . The agriculturists of Western Normandy, having abandoned cereals, now get a very fair return for their capital and labour out of dairy-farming, horse-breeding, poultry-rearing, cider-apple orchards, and market gardening.

The butter export from Cherbourg, which rose from 1,850 tons in 1869 to 21,519 tons in 1897, has since declined to about 16,000 tons (in the face of Danish and other competition), notwithstanding a temporary increase in 1902, and the export of poultry, as well as eggs, has also fallen off during the last few years. But, in the spirit referred to by Mr. Gurney, the farmers of the district are again showing their powers of adaptability to circumstances by pushing their alternative trade in potatoes and vegetables. The position to-day is that nearly all the available land between Cherbourg and Barfleur, and on to St. Vast, is being devoted to potatoes and cauliflowers. In the district between Cape La

Hague and Granville the cultivation of parsley has been carried on to such an extent that one grower alone exported to England during the season in 1901 no fewer than 100 packets of parsley a day, each packet representing 20 lbs.

By way of final illustration of the practical results that have followed the general change of policy referred to above, I cannot do better than give the following figures relating to some of the principal items of export from St. Malo to Great Britain:—

	1895	1896	1897	1898	1899	1900	1901	1902
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Butter	1615	1613	1003	882	831	924	562	1149
Eggs	5500	6939	5948	4594	4768	4788	4252	3407
Potatoes	15770	18634	15992	22130	42328	22303	28214	38594
Fruit	3199	1919	2029	1123	4163	2888	3179	1829
Fresh vegetables	...	2039	1932	1214	3243	1661	897	2256
Chestnuts	3290	3614	3210	3288	4415	3413	4982	2458
Poultry	79	85	99	35	29	74	76	26
Mistletoe	...	...	350	432	229	210	272	275

To this table I will only add that while, in regard to the actual sale of such produce, co-operative effort may play a less conspicuous rôle in France than in other countries in the North of Europe, and while, also, the grouping of lots there may still be done mainly through the individual trader, the influence of agricultural associations has, nevertheless, been distinctly felt by the cultivators in the cheapening of fertilizers,

the increase of facilities in regard to the purchase or use of agricultural implements or machinery, and in the bringing of capable advisers to the front,—advantages which have all played their part in lowering the cost, and swelling the volume, of production.

CHAPTER VI

BELGIUM

IT was not until about the year 1890 that Belgium began to seriously bestir herself with the view of effecting the improvement, or, rather, the reconstruction, of her agricultural position. Yet the claim is made for her that, relatively to her size, more associations have been established in Belgium in the interests of agriculture than in any other country in Europe; while, as regards accomplished results, one authority on the subject, M. Louis Varlez, says:—

> The movement has hardly yet been outlined, and already the agrarian crisis has moderated—in some parts of the country it has already come to an end. We are taking part in a real awakening (*un vrai réveil*) of agriculture. What will it be like when the movement has developed its full proportions—when it shall have spread throughout the entire country?

There were, it is true, agricultural associations in Belgium prior to 1890, and notably those that

went by the name of "Comices Agricoles"—semi-official, State-supported bodies which, originally created in 1848, were useful in their way, especially as mediums for collecting information, but were not sufficiently representative of the agriculturists in general, and did not constitute a real living force equal to the requirements of the day. This said force came into existence, rather, with the creation of "free" or non-official associations, and the expansion which these have undergone, as shown by the "Exposé Statistique des Associations d'Intérêt Agricole," issued by the Belgian Minister of Agriculture, is certainly remarkable enough, considering the very short time that has elapsed since they were started. A few facts and figures from this report may be given in order to convey an idea of the general position, before we consider the particular causes that have led to results so striking.

Of local agricultural leagues, formed by agriculturists "for the study and the defence of agricultural interests," there were in Belgium at the end of 1901 no fewer than 776, with a membership of 42,659. The action of these leagues is in some cases confined to a single hamlet, while in others it may extend over several communes; but nearly all are affiliated

to some federation whose operations may embrace a canton, a province, or the entire country. The oldest of the federations is the Boerenbond; the others include the Fédération Agricole du Hainaut, the Fédération Agricole de la Province de Liége, the Ligue Agricole Luxembourgeoise, etc.

The primary object of the local societies is the purchase in common of agricultural necessaries, this being effected through central organizations, some of which are represented by limited liability companies formed by the agriculturists as an adjunct to their ordinary associations. Of purchase societies the number in 1901 was 780, with a membership of 49,000, and the purchases amounted to a total of 14,000,000 francs. Some of the associations procure costly agricultural machinery, which they let out on hire to their members or others, the value of machinery thus held in 1901 being 98,000 francs. The equipment of co-operative dairies is undertaken in certain instances, and the federations operating in the dairy districts have organized a complete system of inspection as to the working and management of the establishments belonging to their members.

The raising of funds for the carrying on of agricultural operations, either by co-operative

associations or by individuals, has been facilitated by the establishment of rural credit banks of the Raiffeisen type. Of these there were in Belgium in 1894 only four, all newly established. On December 31st, 1901, there were 286, connected with six central banks, created by the different federations. The 286 societies represent a membership of 13,000.

Of "mutual" societies for the insurance of cattle there were 729 in 1901, with 67,000 members, the number of cattle insured being 198,000. How this movement is spreading may be illustrated by the case of Luxembourg. In that province there were no cattle-insurance societies at all in 1900, whereas by the end of the following year there were thirty-three. Then during 1901 there were established in Belgium thirty-seven societies for the insurance of horses, and seven for the insurance of goats. The operations of all these live-stock insurance societies are safe-guarded by federations for re-insurance.

To such an extent has the principle of "grouping" fire insurance policies—with the view of getting a reduction in the premiums—been carried, that by the end of 1901 the Boerenbond federation of agricultural associations had "grouped" over 8,000, and other central bodies

controlled 159, 1,200, 642, and 112 respectively. In the same way the federations group policies for insurance against accidents.

Among the associations formed to promote special interests may be mentioned the 245 Bee Societies, forming eight federations, and comprising 10,000 members. These societies organize exhibitions, open special markets for the sale of honey, and hold from 300 to 400 conferences in the year to further the interests of apiculture. The Horticultural Societies number 133, with a membership of 19,000; and the Bird Societies (which especially devote themselves to the rearing of pigeons for food) number 54, with a membership of 4,000; while of associations for improving the breed of cattle there are 312, with a membership of 11,000.

Of co-operative dairies there were 69 in 1895, 109 in 1896, 167 in 1897, 237 in 1898, 356 in 1900, and 427 in 1901. The membership in 1901 was 47,447—mostly very small farmers indeed, judging from the fact that the average number of cattle possessed per member is only 2·7. The sales effected in 1901 by these co-operative dairies amounted to over 22,500,000 francs.

In commencing an inquiry as to the circumstances under which all these results have been

secured, one is speedily brought face to face with conditions peculiar to Belgium, and hardly to be compared with those of any other country. What one finds is that this extensive development of agricultural institutions in Belgium is the result, not so much of a deliberate attempt to meet changing economic conditions, as of a most practical effort on the part of the clergy, supported by the present "Clerical" Government, to prevent the spread of Socialism in the rural districts, and to increase the hold alike of the Church and of the Clerical Party on the agriculturists of the country by taking effective measures to improve their material and social position. There is, in fact, scarcely one of the "free" agricultural associations indicated by the statistics given above that has not been more or less inspired, if not actually brought into existence (and in many cases even still controlled), by some parish priest or other. The reasons for this distinctly curious position of affairs are deserving of some consideration.

Not only is Belgium a country where political partisanship is carried to an extent unknown in Great Britain, but the ramifications of the Socialist propaganda, in particular, have undergone great extension there of late years. So long as that propaganda was confined to the

toilers in the large cities, the situation was one that had to be accepted with the best possible grace. But there came a time when a threatened spread of Socialist doctrines to the rural districts gave rise to serious alarm. Various causes were operating to bring about the apparently impending result. The agitation in favour of universal suffrage, the rapid spread of education in the agricultural districts, and the wider circulation there of cheap political newspapers had done much to expand the intellectual horizon of dwellers in those districts; but a much more potent influence in the propagation of Socialist ideas in Belgium has been found in the fact that so many dwellers in the rural districts who are employed in the large industrial centres are brought into daily contact, either in the train or at their work, with individuals of Socialist tendencies whose views they eventually adopt, more or less, and take back with them to the villages, there to become each a propagandist on his own account. Then every year troops of agricultural labourers proceed from Belgium to France to take part in the harvest, and they, too, bring back advanced ideas with them; while, in addition to all this, the Socialist party in Belgium has of late years deliberately sought to capture the rural districts by every means in its power.

So it was thought by all good Catholics in general, and by the clergy in particular, that the time for action had come. As far back as 1876 the question was raised of giving instruction in agricultural subjects to young men under training in the Seminaries for the priesthood, to fit them for taking part in agricultural movements in the parishes, and this course was adopted as soon as it became the fixed policy of the Church to check the spread of Socialism in the rural districts. Not only was such instruction given (with the help of State subsidies), but the bishops were most earnest in their efforts to induce the parish priests to promote the various forms of agricultural combination with all the zeal in their power. In this way almost every curé became the centre of a local movement for the starting of agricultural associations, and how well qualified they became so to act is shown by a story told by M. Max Turmann in his book, *Les Associations Agricoles en Belgique.* M. Lecoffre went one day to a co-operative dairy with a priest who was "diocesan inspector of agricultural undertakings," and found that operations had been stopped for two hours because of a breakdown in the engine which the engineer could not remedy. The priest-inspector examined the engine, and then called

for some tools, turned up his cassock, and himself set to work on the engine. In a quarter of an hour it was in full working order again. "Such men," says M. Turmann, "have their influence; beyond their priestly dignity their technical knowledge inspires respect and confidence."

The movement which has thus assumed such widespread proportions and so many different forms had its actual rise mostly in the starting by isolated individuals of small associations for the combined purchase of agricultural necessaries, the scope of action being subsequently widened alike by the taking up of other objects and by means of groups and federations. A single illustration must suffice.

A Flemish farmer at Goor went one day to the curé of the parish, M. l'Abbe Mellaerts, and spoke to him about the poor quality of his wheat crop. The curé had studied botany and kindred subjects at his Seminary, he had especially followed up the subject of chemical manures, and he had made experiments on his own account in the garden of his house. So he asked the farmer, "If I tell you of a remedy, will you use it?" "If it is not too dear," was the reply. When the farmer called again the abbé gave him a sack containing twenty-five

kilogrammes of chemical manure. The farmer was reluctant to take it. He had no confidence in such manure as that because it did not smell strong enough. But he was induced to try it as an experiment, and he used it to grow some potatoes, with such excellent results that he went to the curé for more. Then several of his neighbours wanted supplies as well. Meanwhile the curé had been reading of what the peasants along the Rhine had done in the way of forming combinations for the joint purchase of agricultural necessaries, and he called a conference of members of his flock to consider the adoption of a like scheme for Goor. His parishioners had no great faith in the proposal, but seven of them put their names down as members of a "Peasants' Guild"—just to please him. They soon found, however, that they could get their supplies cheaper and of a better quality through the Guild than they could individually, and thereupon more members joined. Within a year the Guild consisted of 100 farmers.

Considerations of health then compelled M. Mellaerts to remove to Louvain, where he became an active writer on agricultural questions, and an especially earnest advocate of agricultural combination. A conference of agriculturists at Louvain, organized by M. Mellaerts

and others, followed in July, 1890, when it was decided that there ought to be in every commune in the province an agricultural association similar to the one at Goor, and that, when formed, all of them should be connected with one central body. By the following year there were 89 local associations of different kinds ready for incorporation into an organization to which the name of "Boerenbond" was given. By 1893 the number of affiliated associations in this federation was 130. In 1897 the total increased to 380, and in 1900 to 450, representing upwards of 26,000 members, and covering the provinces of Antwerp, Brabant, and Limbourg. The federation publishes a monthly agricultural review, holds innumerable conferences and periodical meetings, conducts experimental fields, has a central office from which a vast amount of gratuitous practical advice is given, exercises a useful influence in regard to legislation affecting agriculture, and carries on so big a business in grouping the orders of the local associations that it has organized a separate section for each commodity, set up a mill of its own for the preparation of feeding-stuffs, and established a wholesale warehouse of substantial proportions in the city of Antwerp—all this being done in little more

than a dozen years. To the original founder of this great federation is further due the introduction and popularization in Belgium of Raiffeisen agricultural credit banks, of which there are close on 200, with about 10,000 members, in direct connection with the Boerenbond alone.

Other of the leading federations, conducted on similar lines, were started in an equally unpretending fashion by parish priests, supported by the more influential residents in particular districts, two of the essential principles of the whole movement being thus succinctly laid down in a report presented by M. l'Abbé Berger at a conference held at Nivelles in 1899 :—

> In the founding of agricultural associations it is prudent to begin with parochial societies which will federate with one another when there is a certain number of them.
>
> It is wise to accord complete self-government to local associations, which should find in the central organization only a guide and counsellor, and not a tyrannical power which will cripple them, and deprive them of all originality and initiative.

As already indicated, the movement received the earnest support and encouragement of the Belgian Government, which had, in fact, already laid some of the foundations. Coming into

power in 1884, the Clerical Party at once created a Department of Agriculture, and began to spread a very practical and thoroughgoing system of agricultural education. One of the most interesting phases of this system was in regard to dairy instruction. The position of the diary industry in Belgium was then being seriously threatened by Denmark, and it was found that not only were the Belgians meeting with very severe competition on their foreign markets, but their home markets also were in danger of invasion. Up to that time Belgian butter had been almost exclusively made by individual farmers. To encourage a resort to the best, and especially to co-operative, methods, the Government organized (in 1890) travelling dairy schools, which would stay three months in each place visited, and give practical instruction to farmers' daughters. Before long every province in Belgium had a travelling dairy school of this description. Steps were also taken by the State to secure the training of dairy managers, so that by the time the farmers were ready to start their co-operative dairies there was a good supply of efficient labour available.

The Government also did much, with the help of its "Corps des Agronomes," to popularize

agricultural science and agricultural combination; but the fact remains, all the same, that in the results actually brought about the State played a secondary part, the credit for what was done being chiefly due to individual workers. The general position will, perhaps, be better understood from the following most instructive account of developments in Luxemburg, as related by M. l'Abbé Couturiaux at a conference of priests held at Seraing in September, 1900 :—

Vast expanses of land in the Ardennes region remained uncultivated, producing nothing but bracken, broom, and heath. The Government, by means of numerous conferences, had sought to spread the use of chemical manures; but the cultivators were mistrustful, and those who attempted to use such manures found that they paid very dear to small dealers for phosphates and nitrates which were more or less falsified, and gave them an inadequate return for their outlay.

In 1892 there were established at Ortho, in the north of the province and in the German section of Luxemburg, the first leagues, or syndicates, of peasants for the purchase in common of chemical manures and concentrated feeding-stuffs for cattle. Experience soon showed the value of such institutions. The peasants found they could buy, at lower prices, products of a superior quality, guaranteed by trustworthy analyses against fraud. The soil began to produce abundant harvests; the cattle, better nourished, improved in quality and gave a richer milk. Confidence in the future revived many hitherto-discouraged cultivators.

54967

The people showed themselves grateful to their pastors for having made them understand the value and the absolute necessity for combination, and in many parishes there were spontaneous demands made to the priests that they should head the movement, and occupy themselves with both the creation and the direction of agricultural associations.

So from such very small beginnings as these there has sprung a great national movement, the main results of which may be thus summarized :—

The original idea of checking the spread of Socialism to the purely agricultural classes in Belgium has been fully realized, for though the Socialists have made vigorous efforts to establish agricultural associations of their own in the country districts, they have had very little success, and the Socialist propaganda in general is making scarcely any headway among the cultivators of the soil.

The State has further benefited by an expansion of the national resources, by the greater prosperity of the agricultural population, and by the creation of more solid guarantees for the maintenance of domestic peace.

The Church has increased her hold upon the peasantry by showing that she recognizes, and will gladly help them to overcome, the practical difficulties of their daily life; while individually

the parish priests have won golden opinions by the conspicuous proofs they have given of both a willingness and a capacity to become leaders of men in material concerns as well as in spiritual.

The peasantry have gained materially, because they can carry on their operations far more advantageously than before (as shown by a calculation made in a Brussels Liberal journal, *La Chronique*, by M. Cauderlier, that since the ingenious network of agricultural associations here described was spread over the country the average return from a farm of 10 hectares—24¾ acres—in Belgium has increased by £100 a year); they have gained morally because they have already to a great extent recovered from their agricultural "depression"; and they have gained socially, because with all the increased power and influence he derives from his manifold associations, economic and beneficent, the Belgian agriculturist has become a very different person from what he was in bygone days.

And, lastly, a further effect of all this foresight and energy, and especially of all this very effective combination, on the part of the Belgian agriculturists, has been to greatly increase, at a proportionately lower cost, the fertility and the total production of their fields and market

gardens, thus enabling them to send to England still bigger loads of those foreign agricultural supplies which the British farmer, clinging to his own old-fashioned methods and ideas, is apt to regard in the light of a personal injustice.

CHAPTER VII

ITALY

THE conditions which have brought about the great revival now taking place in Italian agriculture—a revival that has already produced remarkable results, and promises still more important developments in the next generation—are not in themselves all of native growth. What has been well described as the *cellule mère* of the whole movement, the organization, namely, of an effective system of agricultural credit, was directly inspired by Germany. The formation of purchase associations was imitated from the example set by France. The establishment of co-operative dairies on present lines was the outcome, more or less, of what had been done by Denmark. The activity of the Roman Catholic clergy in Italy in promoting the material interests of cultivators of the soil reminds one of what is being done in this direction in Belgium.

But although Italy may have borrowed ideas

from elsewhere, and although in certain respects she may not yet have carried those ideas so far as other countries have done, her national genius has shown itself in the skilful, if not thoroughly statesmanlike, manner in which the pioneers of the revival have woven into one complete system what are elsewhere still mostly a series of isolated efforts and sectional aspirations. In this way there has been secured in Italy complete unity of conception in a well-conceived, though many-sided, general scheme of organization which, complex though it be, is essentially harmonious in its scope and operation. Neither in Germany nor in France, neither in Denmark nor in Belgium, is there to be found that "fundamental idea" which in Italy has brought about the co-ordination of all parties and all interests for the achievement in various, but strictly interdependent, ways of a common purpose—the progress, that is to say, not alone of agriculture or of industry, of the masses or the classes, but of the national well-being as a whole.

The first of the main principles upon which the so-called "Italian system" thus brought about has proceeded is that thrift should receive every possible encouragement among the people, not only because it is a virtue and a material advantage in itself, but also because the savings

resulting from production represent financial resources which ought to be re-invested in production, and especially in those forms thereof that are included in agricultural operations. Provided that adequate guarantees are given for its security, the surplus money of industrial workers—who are often at a loss to know how to invest it profitably—could not, it is claimed, be put to better advantage than in the formation of funds on which cultivators of the soil, in the neighbourhood of the towns where the money has been earned, could draw for the purpose of facilitating operations on land that requires capital for its development; while those operations would, in turn, improve the conditions of the industrials by ensuring them (apart from the mere payment of interest) more employment through the greater demand for agricultural implements, etc.

From this point of view the representatives of the "Italian system" are entirely opposed to the French idea of thrift, under which the toiler who saves a few francs as the result of his operations will invest them in Government stock, getting a modest return thereon, but sending the money out of the district in which it has been earned, and encouraging, it may be, his Government to spend money more freely because of the evidence

that seems to be afforded to them of a presumptive national wealth. Still more averse is the "Italian system" to the sending of money out of the country for investment in foreign securities or speculations. Even the smallest of savings should, it is argued, in a country like Italy, whose available capital can be derived from savings only, be paid into banks which will represent the natural intermediary between town and country, and respond to the needs of agriculture in irrigating the rural districts with channels of financial credit which will facilitate the operations of even the most modest of cultivators. All this, it has been proved to demonstration, can be done without danger to thrift, and the thrift itself is, as it were, "twice bless'd."

In the various developments to which the application of this principle has given rise is to be found the open secret of the revival of Italian agriculture. The peasants of Italy were, perhaps, even worse fitted than those of most of the other countries of Western Europe to meet the crisis that arose when the markets to which they had sent their products began to be flooded with supplies from the virgin soils of the New World. Italy had then not long attained her national unity, and with it she had inherited a burden of public debts that, poor as she was,

crippled her powers of action, and was steadily increased under the heavy expenditure necessitated by the altered circumstances of her political position. This burden fell mainly on the cultivators of the soil, and of these a large proportion were owners or occupiers of "farms" of infinitesimal proportions (there were certain districts in which 25 per cent. of the peasants had less than a quarter of an acre each), and were, besides, victims of a condition of usury that was little better than slavery. Money-lenders flourished throughout the land, and especially in the northern provinces, by advancing loans to the helpless peasantry at the cruellest rates of interest, the only alternative being either the securing of fresh stock or other necessaries under a "lease" system, the peasant working off by manual labour the excessive prices he was charged for what he bought; or the seeking from the aristocracy of pecuniary favours which robbed the peasants of all sense of independence.

In these circumstances it was not surprising that hundreds of the peasants were sold up for non-payment of debts, or of rates and taxes, which often did not exceed five or six shillings in amount; that more and more land was going out of cultivation; that the ranks of the unemployed in the towns were being swollen by

constant accessions from the rural districts; that the emigration of Italians who despaired of their country went on at a greater rate than ever; and that Italy seemed to be ill-equipped, indeed, to meet the coming economic struggle for the markets of the world.

The conclusion arrived at by some of the most far-seeing of Italians was that to compete with the aforesaid virgin soils of new countries the peasants of Italy must resort to improved methods of culture, and must especially make use alike of the fertilizers that agricultural chemistry was offering to the world, and of the improved forms of agricultural machinery. But to do this meant the expenditure of money, and the problem that arose was—How can the impoverished peasantry obtain the necessary capital? The solution of this problem was found in the argument already stated—that the earnings of the people in the towns should be made available for the use of the agriculturists in the country.

Savings banks had already been in operation in Italy since the year 1822, and it had from the first been one of the principles of these banks that the deposits should be so employed as not only to secure a benefit for the members, but also to promote the general economic conditions

in regard both to industry and to agriculture. This latter principle was especially enforced at a national congress of savings banks held at Florence in 1886, following on which fresh legislation was adopted in 1888, reorganizing the system on which the savings banks had been established, and granting them wider powers in the way both of assisting agricultural associations, by giving them credit, and of making grants for beneficent purposes or works of public utility.

Meanwhile a scheme for the formation in Italy of People's Banks on the Schulze-Delitzsch model had been actively propagated by Signor Luigi Luzzatti, and a start was made in 1864 with a bank of this description at Montelupo Florentino, others following at Zodi, Cremona, Milan, and elsewhere. But the People's Banks thus set up in Italy differed from those in Germany in so far as related to the principle of the unlimited liability of the members, it being feared that this principle, which answered well in Germany, would not be acceptable in Italy. In 1876 an Association of People's Banks was formed, and in the following year there was a first congress at Milan; but the greatest degree of progress in the general scheme for bringing credit within the reach of the agricultural districts was not made until 1883, when there was

set up by Signor Wallemborg, at Loreggia, near Padua, the first of those Village Banks which have since so powerfully affected the general situation.

Experience had shown that the ordinary banks —including the People's Banks—were beyond the reach of the peasant or the humble toiler who had no security but his honesty and his labour to offer in return for a small loan for the purchase of a calf or some implements, which might be of inestimable advantage to him; while it was essentially part of the Italian system that financial credit should be at the disposal of all deserving persons, whatever their worldly position. The Village Banks, therefore, aimed at reaching agriculturists whom the People's Banks had been unable to touch; but between the two there was perfect harmony, the one being, in fact, regarded as a natural complement of the other.

The Village Banks thus established have a twofold character. Those known as "Agrarian Banks" are country branches (in effect) of either a People's Bank or a Savings Bank, or, alternatively, are affiliated to some central organization to which the deposits they receive must be forwarded; whereas the "Rural Banks" have complete self-government, and can themselves

utilize deposits for the purpose of making advances. In either case the Village Banks can draw on the People's Banks or on the Savings Banks for the funds they may require to lend out to their members. The fear that was entertained in the establishment of the People's Banks that the principle of unlimited liability of members would be impracticable in Italy was dismissed on the formation of the Village Banks, which are mostly based on the Raiffeisen principle, the members of each bank being jointly and severally responsible for any default on the part of a borrower. The effect of this arrangement is that the Savings Bank or the People's Bank which lends money to the Village Bank has good security, and the members of the Village Bank, aware of the risk they run, are careful to admit as fellow-members, and especially to make advances to, only such individuals as are known to be honest and industrious. A loan would not be made outside a village, where, of course, each resident would be known to his neighbours. In this way it was found possible to grant loans to men who, from the point of view of the ordinary bank, had absolutely no "security" to offer. Moral worth, on which nothing could have been raised at a People's Bank, was quite sufficient at a Village Bank,

and the losses sustained have, in point of fact, been altogether insignificant. The loans granted by the Village Banks are mostly for the purchase of live stock or tools, or for the construction or repair of buildings, and they will range in amount from about £3 to £8, advanced for periods up to two or three years.

Thus far, then, the Italian system, collecting the savings of even the humblest of workers in the towns (deposits by labourers, domestic servants, school children, and residents in charitable institutions are encouraged by the payment of a higher rate of interest) had brought agricultural credit within the reach of the humblest of toilers in the country, and had effectually checked the usury that formerly did so much to the prejudice of both land and people. But there were two further steps necessary to make the system complete.

In the first place the agriculturists who could now secure the capital they wanted must be provided with an organization which would enable them to purchase good qualities at a low price. This was done by the formation of agricultural syndicates on the model of those already so well established in France. The first of these had made its appearance in Italy in 1887; but it was not until the network of bank-

ing institutions here described had begun to spread through Northern Italy that the formation of agricultural associations for the buying of fertilizers, machinery, feeding-stuffs, etc., made any really great progress. Even as it is, the agricultural syndicates in Italy have not gone much beyond the original idea of collective purchase, and do not attempt to meet anything like so great a variety of purposes as in France.

But Italy has gone far beyond France in taking the second of the two steps which, as I have said, were required to complete the Italian system. The peasants had now both the means of raising money easily, and the facilities for laying it out to the best advantage; but they were still in need of such instruction in agricultural questions as would tell them what to purchase, and how to carry on their operations with the greatest chance of success. In France and other countries there are, it is true, State functionaries whose duty it is to give expert advice to agriculturists requiring it; but these officials are tied more or less by official routine, and it was left for the Savings Bank of Parma—which had already established Village Banks throughout the province—to take the initiative, in 1893, in the appointment of a travelling pro-

fessor of agriculture, whose function it was to watch over the progress of agriculture in the district, and especially to see that the persons borrowing money from the local institutions to which the bank was making advances got the best and most practical advice in the laying out of their money.

To accomplish these purposes the professor holds numerous conferences at which he delivers addresses on a wide variety of agricultural subjects, including the adoption of improved methods, the employment of fertilizers, and the advantages of organization; he gives personal consultations; he carries on experimental or demonstration fields, and even visits farms and gives advice there in return for a very moderate fee; he holds gatherings of agricultural labourers in the winter evenings; he edits a monthly journal which is a valuable auxiliary to the conferences and public addresses; and he encourages measures for the improvement of stock, the organization of co-operative dairies, the bettering of pastures by the use of chemical manures, the taking of precautions against phylloxera, and so on.

Then, too, he is the director of the local agricultural syndicate, so that when a would-be borrower seeks an advance from the Village Bank the professor not only advises the members

thereon, from an agricultural standpoint (loans being granted only for agricultural purposes, and not for personal use), but he arranges for the goods in question to be delivered through the syndicate to the borrower, who, himself, in no case handles the actual money nominally lent to him.

So the guarantee is complete. The members of the Village Bank themselves know whether or not the applicant can be trusted; they have the word of the professor that the proposed expenditure is a wise one; and they have the certainty both that the purchase will be effected in the best and in the cheapest market, and that the money they lend will be used for the purpose for which it is granted.

In this way the travelling professor is a direct bond of union between the Savings Bank, the Village Bank, and the agricultural association, while constituting in himself a peregrinating bureau of agricultural information, of which all who will are free to take advantage. So we get the various stages of the Italian system: the savings of the toilers in the cities are paid into the Savings Banks or the People's Banks; from thence they pass on to the Village Banks to offer a vivifying agricultural credit to workers who would otherwise find themselves left to the

tender mercies of the professional usurer; the agricultural syndicate ensures the profitable expenditure of the money; and the travelling professor, following in the footsteps of agricultural credit, takes to the very door of the poorest peasant the latest discoveries of agricultural science, and fulfils generally so useful a purpose that M. le Comte de Rocquigny says in a report prepared by himself, M. Leopold Mabilleau, and M. Charles Rayneri, for the Musée Social, on "La Prévoyance Sociale en Italie":—"Dans le plan de cet harmonieux ensemble c'est la chaire ambulante qui éclaire et vivifie le systeme tout entier, en regle le bon fonctionnement, et en écarte les perils." It is, in fact, the travelling professor who completes a general plan of campaign which, even without him, had attained a unity of action not to be surpassed elsewhere.

To this outline of the Italian system as a whole there are some supplementary details which must be added. The part, for instance, which the Roman Catholic Church has played more especially in the promotion of Village Banks in Italy must not be ignored. So far back as 1892 there was passed at the tenth Italian Catholic Congress, held at Genoa, a resolution which affirmed that "all Catholic rural associations shall proceed with the formation of strong

territorial associations of landowners and peasants to raise morally, intellectually, and economically the conditions of agriculturists." The direct object in view was, however, as in the case of Belgium, to combat the Socialist propaganda in the country districts, while a bulletin issued by the Catholic Agricultural Union of Lombardy pointed to the facilities which that institution offered to a priest "for getting into closer touch with the people, and the powerful means it affords for giving activity and life to Catholic societies." With such zeal was the movement taken up by the Roman Catholic priesthood that of the 904 Village Banks in existence in Italy in 1897 (as shown by the *Statistica delle Società Cooperative Italiane*, issued by the Lega Nazionale delle Co-operative Italiane) no fewer than 779 had been formed by the Catholics during the preceding five years. In fact, the official organ of the co-operative banks in Italy, *Credito e Cooperazione*, said in its issue of August 16th, 1903:—

The rural banks have undergone a development and a diffusion altogether extraordinary; but the exuberance of that growth has been to their detriment. It has been sought to do too much in too short a time, and that, also, with a certain emulation—not to speak of hostility—towards Liberal co-operation (*la cooperazione liberale*). In some places the institutions are perfectly sound; but in several they have fallen into the hands of rash and in-

experienced persons, and the central federation has not always sufficed to preserve them from errors and disaster. The entire body of the clergy have wished to take part in a course of action that has been altogether precipitate, and it will be a heavy task to save in rural co-operation the part that is healthy.

When one reads that a certain set of model rules lays down that members of a Catholic Village Bank must show "Christian sentiment towards religion, the Church, and the Pope"; that another insists that members must attend Mass at Easter and belong to no society that is opposed to the Catholic Church; and that a large number of the Catholic banks are of distinctly mushroom growth—it is no wonder that a certain degree of criticism should have been aroused. But, after allowance has been made for all shortcomings, there is left a sufficient percentage of clerical as well as of non-clerical institutions to represent a steady growth of agricultural organizations which is undoubtedly having a powerful effect on the general conditions of Italy, while Catholics and non-Catholics alike are now showing a greater disposition to find a common platform on which they can unite for securing the further material progress of the people.

Complete and trustworthy statistics on the present position of the movement in Italy are

not yet available, but it is estimated that of People's Banks there are 657, with 381,000 members and a capital of £4,200,000; and of Village Banks 1,050, with 95,000 members and £25,000 capital. In 1900 there were 192 co-operative agricultural associations, with 45,000 members, and the collective purchases amounted to £800,000. Of co-operative dairies (which are spreading rapidly throughout North Italy) there are said to be 750, with 37,000 members and £40,000 capital. The co-operative dairies are being followed by co-operative wine factories and distilleries, and other forms of the general movement are represented by various associations for the improvement of stock, for co-operative insurance, etc.

As to the accomplished results in Italy, there may not have been equal success all along the line, and the difficulties have been found especially great in organizing effective systems for the co-operative sale of produce, so that though cauliflowers, eggs, and other such things are exported in prodigious quantities, each trade remains mostly in the hands of middlemen dealers. One must remember, too, that much of what has been related is of comparatively recent growth, and that the full development thereof has still to be attained. Yet the mem-

bers of the Musée Social commission do not hesitate in their report to speak of the agricultural revival in Italy as a "resurrection," and there is, indeed, abundant evidence that from both a material and a moral standpoint the outcome of the movement has already had a most powerful influence for good.

Materially, that decentralization of capital which has saved the Italian agriculturist from the money-lender, and placed an easy credit within his reach, has, in the first place, led to a greater amount of land being bought under cultivation, as shown by the town of Sansevero, near Foggia, where, in a little over ten years, thanks to the People's Bank, no fewer than 8,000 acres have been converted into vineyards. Then the increase in the extent of the land cultivated has been followed by an increase per acre in the yield therefrom, owing to the greater use of fertilisers, machinery, etc., as encouraged alike by the spread of agricultural instruction and by the facilities offered, in regard to purchase, by the agricultural societies. The quality of the stock has improved; farm buildings that were once neglected, from lack of means, are now kept in good order; agricultural industries, and especially co-operative dairies, are affording new openings to energy and enterprise, and the

whole agricultural position, though still far from representing complete prosperity, has undergone an improvement that is little short of marvellous, considering how recently it was that the Italian peasantry found themselves faced by some of the severest forms of economic depression that any country could well be called upon to meet.

Morally, too, the effects have been none the less striking. To be rescued from the grasp of the usurer was in itself almost a revolution for the Italian peasant; and the revolution was completed when he found that he was no longer a solitary unit, left to struggle against adverse circumstances as best he could, but one of a village community which could draw money from the towns, and would, if only he had the good opinion of his neighbours, advance funds to him, for agricultural purposes, simply on his word of honour. Such a position—coupled with the fact that only individuals of known probity (irrespective of means) were admitted to an organization each member of which was personally liable to refund the sum total of the loans, in case of need—was a moral lesson of immense force, and in many an Italian village men regarded with a certain degree of mistrust have mended their ways in order to gain the desired membership. In other cases illiterates

have learned to write, so that they could attach their signatures to the necessary papers. All these and the various other conditions following from fraternal association have had their reflex action on village life in Italy, investing it with interests and possibilities hitherto undreamed of, and filling the peasants with new hope and trust in the future.

Finally, we have the significant fact that this economic and moral transformation in Italy has been due much more to individual initiative than to that Government intervention on which many people of despondent temperament are apt to place far too great a dependence. Italian Governments have certainly shown their sympathy with the movement by widening the functions and improving the legal status of the banks; by giving practical encouragement in the setting up of co-operative dairies, and in other ways besides. But the conception of the Italian system and the remarkable success with which it has thus far been carried into effect are alike primarily due, not to State aid, but to the wisdom and the personal energy of a comparatively small number of individual patriots.

CHAPTER VIII

HOLLAND

IN the early eighties the agricultural interests in Holland found themselves drifting into a most serious condition of economic depression. With the steady fall of prices in wheat, more and more land was going out of cultivation; in the dairy industry the competition of Denmark was beginning to be severely felt; in the sale of market-garden produce the returns were steadily declining; and in other directions besides the farming classes found themselves faced by a decidedly dismal prospect. It was evident that fresh and vigorous efforts would have to be made if Dutch agriculture hoped to hold its own, and the question arose as to what would be the best direction in which such efforts should be put forth.

To solve this problem a Royal Commission was appointed in 1886, and the report it presented three years later showed that there was need for the adoption alike of State aid and of

self-help, each of which principles, indeed, has since been most actively carried into effect.

In regard to State aid, it was seen that one of the most pressing requirements of the situation was to secure an effective national system of agricultural and horticultural education; and the necessary machinery for the organization of such a system was duly provided by the creation of a special Department of the Ministry of the Interior for the administration of agricultural affairs, such Department being assisted by a Council of Agriculture, which not only acts in an advisory capacity, but constitutes an Agricultural Bureau of Statistics for the whole of the country. The State Agricultural College, which had already been in operation at Wageningen since 1876, was now supplemented by a series of local winter schools for the teaching of agriculture or horticulture, and by a variety of other educational institutions and arrangements.

The nature of the winter schools may be illustrated by those for horticulture and market-gardening established at Boskoop, Naaldwyk, Aalsmeer, and Tiel. The course of instruction is arranged to suit the conditions of the particular locality, though the general principles of market-gardening are taught at each. Boskoop, in South Holland—a most interesting place to

visit—is the centre of a district in which about 1,000 acres of land are devoted to market gardens, divided and sub-divided by the inevitable canals, and market-gardening and floriculture are, consequently, the principal subjects of instruction in its Winter School. The local authorities provided both site and buildings for the school, which has five class-rooms, and residential accommodation for its director, together with two acres of gardens, the produce from which is sold to supplement the grants made by the State for the carrying on of the work. Aalsmeer is one of the curiosities of Holland, though it is a place unknown to the ordinary British tourist. Approached by boat, it looks like a series of perfectly square or rectangular floating islands, pegged into position, as it were, to prevent their floating away. These islands have, in fact, been formed by the thrifty Dutch out of pieces of bog land that have risen from time to time from the bottom of the adjoining lake, and been pushed together until they were sufficiently large to form fair-sized gardens, the original stakes driven through them being supplemented by the planting of trees, the roots of which have penetrated through the bog and the water underneath until they reached the solid earth. On these islands the people brought

from the mainland soil enough to form substantial gardens, and there they live, in modest dwellings, cultivating their produce, which a regular service of boats takes off each day to the Amsterdam market. In Aalsmeer, therefore, the studies followed in the Winter School are devoted mainly to gardening. At Naaldwyk the chief branch of instruction is the cultivation of fruit and vegetables, and at Tiel the principal subject taught is fruit culture.

The particular purpose of the instruction thus given is, as defined by the Royal Decree of June 3rd, 1901, to enable persons who intend to take up market-gardening as a livelihood to obtain the necessary theoretical knowledge of the business at the least possible expense. The management of each school is entrusted to a local committee nominated by the Minister of Waterways, Trade, and Industry, such committee being required to send in periodical reports, both to the Minister and to the Government Inspector of Intermediate Education, as to the progress of the schools.

Then the Government have established in different districts a series of seven laboratories, each with its director and its staff of chemists and botanists, for the examination and testing of seeds, artificial manures, etc. The laboratory

at Hoorn (North Holland), the centre of the dairying industry, has in addition a bacteriological department and an experimental farm. The directors of all these laboratories form a College which meets twice a year. Distributed throughout the country, also, there are State demonstrators, twelve for agriculture and seven for horticulture, who give such personal instruction to the farmers as may be needed; and there are district veterinary surgeons whose help is available for breeders of stock.

So in these and other ways the State gave what aid it could in the relief of depressed agriculture, and it remains to be seen what the Dutch producers, in their turn, did in order to help themselves by helping one another.

In the best of circumstances their position was one that must inevitably have had its disadvantages. Of these one of the most serious was the question of rent. In a country like Holland, so circumscribed in dimensions, and consisting so largely of land kept back only by artificial means from the grasp of the ocean, farms and holdings are certain to command a high rental, and the more they are cultivated the more valuable they become. Then, again, the Dutch farmers mostly have large families, and as the children grow up, and a farm becomes too

small to support them all, some of them have to look out for land elsewhere, such requirement leading to a still further increase in land values. Thus the tenant farmers had to work harder to pay the increased rents to their landlords, of whom they complained that, living among the attractions of the Hague, and spending their money there, they drained the country districts of financial resources.

But if the landlords had their faults, the farmers had theirs as well. Without being a highly cultured person, the Dutch agriculturist regards himself as essentially shrewd, and there was a time when he was, also, essentially *slim*. Reduced to the necessity of finding a market for his produce abroad, he thought he could play tricks with the foreigner by putting good fruit or good vegetables on the top of his sack, and inferior qualities beneath. The said practice was one that in bygone days was more especially adopted in the Westland district, which lies between the Hague and the Hook of Holland, and is famous for its fertility. As time went on Dutch produce in general, and Westland produce in particular, began to get a bad name on the English market, and to this cause was due, in part, the falling off in prices which, as already shown, was one of the causes that led to

the appointment of the Royal Commission in 1886. The effect of these reduced prices on the growers was rendered still worse by the fact that the disposal of their produce was then almost entirely in the hands of middlemen, into whose pockets, it was alleged, went most of the profits. As regards the dairy farmers, not only was there a lack of uniformity in the qualities of the butter, there being so many independent producers, but there was also a lack of uniformity in quantity, in regard to butter exported, the available supplies being kept back for the home market whenever it was thought that better prices could be obtained there than in England.

One sees from all this how thoroughly justified the Royal Commission of 1886 had been in recommending self-help as well as State-help, and, in point of fact, the agricultural community showed themselves no more backward in adopting the one principle than the Government had been in acting on the other.

The market-gardeners, for instance, reorganized their industry on lines that represented some almost revolutionary changes. While the State was teaching them how to produce to the best advantage, they hit upon new expedients for selling to the best advantage. All through North Holland, for example, the market-gar-

deners formed themselves into co-operative societies which are conducted along extremely practical lines. The goods of the members, before being offered for sale, are inspected by officers appointed for the purpose, and any that are regarded as below the required standard are rejected, while those that are passed are labelled with the registered trade mark of the society. It is also seen that the consignments are of the stated quantity, and that they have been properly packed. Thus approved of, the produce is offered for sale at the society's mart, the auctioneer being generally the president of the local society or branch. Many of the societies have their own auction halls; others hold their auctions in hired buildings. The sales take place every night or so many nights a week, according to the importance of the centre and the season of the year, and they are attended by dealers and commission agents from Rotterdam, Amsterdam, the Hague, and elsewhere. The goods sold are paid for in cash, and the money is distributed weekly among the members, each receiving the sum for which his produce has been sold, less a small commission. Apart from this commission, all that a member is required to pay to his society is an annual subscription of 1*s.* 8*d.* The expenses are kept at a minimum, the only official

receiving a salary being the clerk of the society. Even the member acting as auctioneer gives his services, considering himself sufficiently repaid by the honour with which the post is regarded.

No arrangement could, in the circumstances, have been devised that was better calculated to promote the interests of the market-gardeners, many of whom, working early and late, lived the life of labourers, and, after paying their helpers and their landlord, found themselves with little more than the equivalent of a labourer's wages in the way of profit. To men so situated it was all-important that they should be able to get the best return they possibly could for their produce.

Among the largest of these co-operative societies of Dutch market-gardeners is the one established in the aforesaid district of Westland, which has now, through the instrumentality of this organization, thoroughly recovered its good name. The Westland Society is, in effect, a federation of seven local societies, whose total sales amount to about £50,000 a year. It is mostly fruit that is grown in Westland—strawberries, raspberries, red currants, peaches, and grapes, with certain quantities of tomatoes and ghirkins. The neighbouring markets of the Hague, Scheveningen, and Rotterdam are easily

reached, a steam tramway passing through every village in the Westland; but most of the produce goes to the Hook of Holland for transport to England. Another important fruit-growing centre is Beverwijk, situated to the north of Ijmuiden. The industry was started here by two or three peasants, and it proved so successful that it was soon generally adopted by the townspeople, so that in the season the little gardens of which Beverwijk seems to mostly consist will be found full of raspberries, strawberries, and red currants, a large proportion of the fruit eventually finding its way to the English market. Such are the quantities produced at Beverwijk that the local canals have had to be improved to facilitate the traffic.

Then there have been societies of market-gardeners established in the district between Alkmaar and Bovenkarspel (near to Enkhuizen), where vast quantities of cabbages and cauliflowers are grown. At one time the chief product of the district in question was Edam cheese, and when Edam cheese fetched better prices, and was more largely sold on the market than is the case now, the farmers were not only well off, but comfortably situated, inasmuch as they could hire persons at a moderate wage to do all the work of cheesemaking, and themselves

live a life of ease. But when the demand for Edam cheese decreased, because the consumers preferred to pay lower prices for other makes, dwellers in the district in question looked around for an alternative source of income, and took to cabbage and cauliflower growing, the greater part of the crops they raise being disposed of by auction at the co-operative sales of the local market-gardeners' societies.

And here we come to see how all this combination may operate to the advantage, also, of the railways. It is probable that most of the vegetables in question will be conveyed by canal-boat to the town where the co-operative auction-room is located; but from thence the dealers and commission agents attending the sales will send large consignments to France, to Germany, and to other countries, and on these long journeys such perishables must necessarily go by train. But the very essence of all this combination is, not only that the growers get better prices for their produce, and not only that the dealers can purchase in bulk, but, also, that the railways get regular consignments in car-load lots, and are able to make lower rates than if they could only expect irregular lots of comparatively small quantities, as is too often the case in England. So it is

that in the summer season a "cabbage train," as it is called, will start each day from Enkhuizen, on the shores of the Zuider Zee, and have fresh waggons coupled on to it at various points, until eventually it will consist of from thirty to forty waggons of cabbages and cauliflowers. Passing through Amsterdam and Rotterdam, the waggons are ultimately taken on to various points in Germany or Belgium—and especially to Germany, where a considerable proportion of the cabbages will be used for the purposes of sauerkraut. From other parts of Holland cucumbers will be taken to Germany in waggon-load lots, and from Groningen or Leeuwarden there will be started daily a train which, with additions made at other stations *en route*, will eventually consist of ten to twenty waggons loaded up with meat for the London market, *viâ* Flushing, the train reaching that port at *grande vitesse* speed.

Among the dairy farmers of Holland the movement in favour of combination has been no less complete than among the market-gardeners. The first co-operative dairy set up by them was in 1878, but the chief development has been since 1890, the total number established having increased from 19 in that year to 539 in 1902. Of these 539 no fewer than 416 are organized

into six different Leagues, and these Leagues, in turn, constitute the Confederation of Dutch Co-operative Creameries, established by Royal Decree of February 12th, 1901. The estimated number of farmers supplying milk to the creameries represented by this Confederation is 40,000, and the butter production of the federated creameries is equal to about 14,900 tons a year.

The chief purpose of the organization in question is to guarantee the purity of the butter, and maintain the reputation thereof in foreign markets, inspections and analyses being made, and recognized trade marks affixed to the consignments coming up to the required standard. In the southern provinces most of the butter is sold by auction in sale rooms established by the Leagues, which enforce their rules and regulations with a thoroughness that renders adulteration, it is said, "very difficult, if not impossible." In Friesland there is a Co-operative Butter Export Association which consigns direct to England. Such is the growth of the butter trade done by Holland with Great Britain that it represented a value of £1,414,000 in 1900; £1,511,000 in 1901; and £1,974,000 in 1902, while the increased profit to the farmers, as the direct result of their adoption of the co-operative system of butter production, combined with

the precautionary measures taken by their various leagues and their central federation, is estimated at from 10 to 30 per cent., as compared with the gains secured under the methods previously in force.

A further development of the co-operative principle in Holland has been the formation of Agricultural Unions, each having its group of local societies. Of these Agricultural Unions there are now eleven in various parts of the country, the main object they have in view being to form a common centre in their respective districts for disseminating information, and otherwise promoting the interests of agriculture. In furtherance of this aim each local society will hold a meeting every fortnight or so to discuss farming topics. These meetings are not only a source of mutual improvement in regard to agriculture, but they promote a community of interest which in various ways facilitates the development of the combination principle. In some instances the landlords themselves join the societies, and give a ready assistance in carrying on the organization. Another purpose fulfilled by the local societies is the purchase of seeds, manures, or agricultural implements for the members; and still another is the holding of periodical agricultural exhibitions on either a

small or a large scale, according to the importance of the society. The Agricultural Unions have also been the means of bringing about the establishment of agricultural credit banks on the Raiffeisen principle, with a central organization in Utrecht; while in the South of Holland the Roman Catholic clergy have taken up the movement, and are actively engaged in forming separate societies and separate banks exclusively for Roman Catholics.

What, therefore, with the very practical aid given by the Government, and the active adoption of self-help principles by farmers and peasants, a network of agricultural organization is being gradually spread throughout the whole of Holland, and abundant evidence is forthcoming that the results are proving beneficial to everyone concerned. The cultivators of the soil get better results and higher profits; new sources of revenue have taken the place of those that were falling off; the "Dead Cities of the Zuider Zee" are showing a good deal of life and vigour; the operations of the dealers and commission agents are facilitated; and the railways are enabled to quote rates which are more satisfactory alike to the traders and to themselves than would be the case if the freight they handled came from an entirely unorganized body

of producers. There are even those who anticipate that when the Agricultural Unions of Holland became still more powerful they may be able to exercise a wholesome influence in bringing about a reform of the land laws. But a consideration of that point would take me further into the domain of Dutch politics than it is here necessary for me to enter.

CHAPTER IX

HUNGARY

ONE of the principal causes for that undoubted improvement which has been brought about of late years in the position of the individual agriculturists of Hungary is to be found in the organization there of an effective system of agricultural credit.

The largest landowners were the first to resort (as they did in the sixties) to the formation of a co-operative credit bank, by means of which they hoped to prevent the breaking up of the great estates; and in the seventies the middle-class landowners followed their example, establishing another bank, in their own particular interests. But neither of those institutions met the case of the peasant farmer, whose position was, perhaps, worse than that of either of the classes above him.

To understand the exact nature of the situation in which the peasant farmer of Hungary found himself, one must go back to the year

1848, when the last remains of the feudal system disappeared from that country. Prior to the year mentioned, the humble cultivator of the soil had to look to the owner of the estate when he wanted financial help, for he himself had no property on which he could raise loans. But his position was altered when, at last, the land he cultivated belonged to him; and he then also became an object of greater interest to the money-lenders, who had previously regarded him as beneath their notice, while the compilation of an elaborate system of land registers—not completed until 1860—enabled them to readily ascertain the position of each peasant in regard to the land he owned, and the extent to which it might already have been mortgaged.

The money-lenders were mostly Jews from Galicia or Russia—men, that is to say, who neither by race nor language had any affinity with their victims—and they so operated that many of the peasant farmers became virtually their slaves. There was a monotonous sameness about their method of procedure. They would first start an inn, or, alternatively, a store, and be especially friendly with any one of their customers who happened to have a fairly prosperous property. On the slightest suggestion they would offer to lend him money, and at

first would press him to accept it—particularly on occasions when he might have taken more liquor than was good for him. In this way the peasant would accumulate a bigger and still bigger burden of debt with the apparently easy-going innkeeper. Then, suddenly, at some moment when he knew the debtor could not possibly pay, the money-lender would demand payment in full, and take possession of his entire property. But the money-lender did not want to be a farmer himself, so he would let the peasant remain there, requiring him, however, to pay, not only a rent for house and land, but even for the "hire" of the oxen—hitherto his own—which he required for the ploughing operations. In this way everything the peasant himself gained, save only a sum barely sufficient to keep himself and his family alive, went into the pocket of the money-lender.

This system was more especially in vogue in the mountain districts in the North-east of Hungary, inhabited mainly by Slavs and Rumanians of the most uncultured type, and no match for the keener-witted individuals who preyed upon them. Matters were not so bad in the plains, where the superior culture and the better position generally of the Magyar peasants made them less susceptible to the wiles of the money-

lenders; but even they too often found, when they required to raise a loan to meet their agricultural needs, that they had to pay for it 40, 45, or even 50 per cent.

To the most far-seeing of Hungarian patriots who were watching the course of events at home and abroad, it was evident there was an absolute need to safeguard the agricultural interests of the country by putting within the reach of the peasant farmers the same advantage of an easy co-operative credit as had been secured by the larger landowners. The subject was discussed at a conference held at Budapest in 1885, and it was resolved to take action. But the very impoverishment of the peasants in the "congested districts" of the North-east made it impossible to start operations there, the people being unable to provide the means which would constitute the necessary capital, and the first agricultural co-operative bank in Hungary for peasant farmers was set up, in 1887, by Count Alexander Károlyi, in the comparatively well-to-do county of Pest, where there was a population of some million and a half of people.

But when twenty village banks had been established the necessity arose for a reconsideration of the position. In the richer districts the local residents were dissatisfied with the rate of

interest allowed them on their deposits by the village banks (which were based on the usual Raiffeisen principles), and they began to withdraw their money in order to set up Joint Stock banks instead; while in the poorer districts there was a difficulty not alone in raising capital, but also in getting men of sufficient capacity to act as secretaries. The choice generally lay between the Protestant clergyman, the Roman Catholic priest, and the village schoolmaster; but all three became ineligible whenever religious difficulties arose.

Then there was another grave source of trouble. The money-lenders had taken alarm at a movement which threatened to deprive them of a lucrative occupation, and they hit upon a scheme as ingenious as it was unscrupulous. Affecting a friendly interest in the village banks, they would hand in substantial deposits in the winter, and the officials would welcome such an addition to the available funds. But in the following spring, when practically all the capital had been advanced in loans to the members, the money-lenders would suddenly demand repayment of their deposits, with the result that the village bank, dependent on its own resources, would be driven into bankruptcy, —which, of course, was just what the money-lenders wanted.

A solution of these difficulties was sought by the setting up, in 1890, of a co-operative credit bank for the county of Pest. This county bank was to serve a three-fold purpose. It would place the surplus deposits of the wealthier districts at the disposal of the poorer ones for the purposes of loans; it would so control the formation and the operation of the village banks as to ensure their being based on beneficent motives instead of simply a desire for dividends; and it would send travelling accountants through the districts concerned in order to see that the books of the local banks were properly kept, and to give the officials such advice or instruction as they might require. The further arrangement was made by the county co-operative credit bank (of which Count Károlyi became the chairman) that, as an additional means of checking the tactics of the money-lenders in their campaign against the village banks, no branch should enter into serious obligations with non-members, in the way of receiving substantial deposits, without first consulting the central office.

The capital for the new county co-operative credit bank was raised by the issue of shares to be taken up by the local banks. Of these there were then about 200; but the effect on the

movement of the greater degree of utility and public confidence brought about by the new policy was that it developed with a rush. Within two years 400 more village banks had been formed. As, however, each new bank naturally wanted a larger sum to start with than it might need to borrow later on, the officials of the county bank found it impossible to provide sufficient capital to meet all requirements.

Meanwhile applications were coming in from other counties wanting to be organized on similar lines, and there were still those "congested districts" in the North-east that stood in especial need of a helping hand. So from outside the movement, the cry was raised, that private effort, which had thus far struggled so manfully with a task of such magnitude, must be supplemented by State aid; and in 1898 the Hungarian Minister of Agriculture introduced and secured the passing of a Bill for the creation of a Central Co-operative Credit Bank which would operate over the entire country. With this Central Credit Bank all the local co-operative credit banks that chose could become affiliated by subscribing for shares, and various practical benefits, in addition to the facilities for obtaining advances, were offered to them so to do. The

State itself took shares to the value of £40,000, and claimed the right to exercise a controlling voice in the general management. Individual sympathisers with the scheme were allotted £80,000 worth of shares; but any dividend which may be paid to them must not exceed 4 per cent., and they are to be bought out as the funds allow, so that eventually the only proprietors of Hungary's Central Co-operative Credit Bank will be the co-operative associations and the State, the share of the latter representing about one-tenth of the whole.

It now became possible to extend operations to the congested districts in the mountains to the North-east; but there had to be a further trial of strength with the professional money-lenders. In one village, for instance, the leaders of the movement held a meeting of the peasants to induce them to start a village co-operative bank, which the central organization would now be able to support. The peasants took a few days to consider the matter. They then gave a reply in the negative. Inquiry showed that most of the villagers were indebted to a group of money-lenders who had set up a local bank of their own and now threatened them that if they agreed to the starting of a co-operative credit bank in the place they would at once

call in the whole of the outstanding loans. But the propagandists were equal to the occasion. They obtained from the central fund a sum of money sufficient to pay off the debts of the entire village, thus getting the peasants effectually out of the grasp of the money-lenders; and they then established the co-operative credit bank, debiting the peasants with the amounts paid on their behalf.

The organization of the Central Co-operative Credit Bank gave a further great stimulus to the general movement, so that by the end of 1903 there were about 2,000 local co-operative credit banks in Hungary, and the year's business represented a turnover of some £3,000,000. But the work that is being done by the village banks goes far beyond the advance to agriculturists of so much money in the form of loans.

One comes here to an especially interesting phase of what may be called the "new village-life" of the country. It is obligatory on the members of a local co-operative credit bank in Hungary that they should pay a small weekly subscription—one penny, twopence, or threepence, as the case may be—towards the funds from which the wants of those requiring loans can be supplied. The officers of the bank attend on the Saturday or the Sunday afternoon

to receive these weekly subscriptions, and the occasion is one for the meeting together of the villagers, who avail themselves of the opportunity to talk over their common requirements. Artificial manures are not much required in the plains of Hungary, but there is a good demand for feeding-stuffs, and the peasants at their weekly gathering will add together the quantities that each may want, and so make up a fairly good combined order. Their village bank is probably in touch with a co-operative supply association, and the local officials will, accordingly, arrange the whole transaction for the peasants, obtaining and distributing the supplies, and debiting each purchaser with the amount due from him, if he cannot pay at once. Other agricultural necessaries are obtained in the same way, so that although there may not be any actual purchase associations in particular localities, a good deal of combined buying may go on, all the same.

The material benefits derived from these new conditions are self-evident; but the moral results have been still more remarkable. It was left for some of the Hungarian clergy to discover a fact which had escaped the notice of the leaders of the movement, and one which they had certainly not aimed at producing, namely, that since

the advent into the rural districts of agricultural organization, with its co-operative credit and other advantages, there had been a noticeable decrease in the amount of drunkenness. Not only was this fact verified, but it was soon accounted for. Previously the peasants had met at the village tavern on Sunday afternoons, for the sake not so much of actual drinking as of social intercourse. But the weekly gathering at the bank offices made it no longer necessary for them to go to the village inn to meet one another. Hence there was less drinking, and the drunkennness which had long been the curse of many of the villages was steadily declining.

The good influences thus unwittingly set up were extended in another direction. In many of the Hungarian villages the advent of the co-operative credit bank was followed by the setting-up of a co-operative store and also of a Farmers' Club, all three often being in one and the same building. The Farmers' Club generally takes the form of a library and reading-room, and constitutes both a centre for intellectual and social development and a distinct counter-attraction to the village inn.

Nor did the aforesaid moral results end even here. Borrowing from the professional money-lenders under the former conditions had been

done with a sense of shame, and a peasant who raised a loan in this way generally tried to keep the fact from the knowledge of his fellow-villagers, who would understand only too well to what the transaction might lead. These secret borrowings preyed no less on the spirits of the borrower than, eventually, they did on his financial resources. But when the co-operative credit bank was introduced the publicity of all its proceedings constituted one of its essential characteristics. The peasant wanting a loan had to convince his fellow-members (who would be personally responsible should he fail to repay it) that he required the money for a legitimate purpose. Everybody in the village would thus hear of the matter, and be in a position to discuss it if they thought fit. Beyond, also, the particular occasion for the loan, the borrower would have to be a man possessing the good opinion of his fellow-villagers before they would grant an advance. A direct incentive was given to him, therefore, to lead a steady, sober, and industrious life, and, besides, to keep out of debt in other directions, for his creditors would assuredly come down upon him at once if they found he was raising money from the co-operative credit bank and did not propose to pay them their due. A healthy public opinion was thus

brought to bear upon the actions and general conduct of the peasants, and the effect thereof was to raise the tone alike of individuals and of the village life in general.

To this list of moral results should be added the fact that religious differences also are becoming less acute in Hungarian villages, as the outcome of the new economic movement. Protestants and Roman Catholics meet together on a common footing for the purpose of securing mutual benefits, and their discovery of the fact that, though they differ on some points, they can work together in complete harmony on others, is having a wholesome influence on their daily relations.

Conjointly with the action of those who sought to promote the revival of agriculture in Hungary by the direct means of that co-operative credit which constituted the real backbone of the whole movement, must be placed the activity of the National Agricultural Society, the county agricultural societies, and the various co-operative agricultural combinations connected therewith. Established in 1830 on the foundations of an older body, known as the "Breeders' Association," the National Agricultural Society operated for many years on the usual lines of agricultural societies of the old-fashioned type, that is to say,

it organized exhibitions, circulated literature, and aimed at extending scientific knowledge on agricultural subjects. In addition to this it secured the formation of local branches to promote the same general purposes, and it helped to bring about the holding of national conferences of farmers. Of late years, however, it has developed a new policy by making great exertions to establish agricultural combinations on co-operative lines, eventually creating, in 1896, a "National League of Agricultural Societies," for which it acts in the capacity of an executive committee.

One of the earliest of the co-operative organizations formed among Hungarian producers for the promotion of special interests was a union of wine-growers. Of more immediate concern, however, to the British farmer is the Central Co-operative Creamery Society of Budapest. This combination was created in 1883 for the supply of milk and dairy products of guaranteed quality, and under the best conditions, to the inhabitants of the capital, the business being so conducted as to yield to the farmers, in their turn, a maximum of possible profit. Operations were begun in a very small way in a house rented for the purpose. By 1885 the concern had prospered so much that it

was able to build extensive premises for itself, and these had to be further enlarged in 1900. They now cover two acres of ground in Budapest. There are received daily at this central creamery close on 9,000 gallons of milk from 100 farms. Of this quantity 3,250 gallons are sold to householders either from branch shops or from milk-carts; 4,000 gallons are delivered to public institutions and wholesale customers, and the remainder is used for cream or butter. The total sum paid to the members for the milk supplied by them, *plus* profits on the business after the payment of expenses, comes to £80,000 a year.

Another development of special interest to British growers is the Hungarian Farmers' Co-operative Society for supplying produce for sale in the market-halls of Budapest. Created on the initiative of the Hungarian National Agricultural Society, this organization advises its members as to the kinds of produce most likely to find purchasers on the markets, gives practical guidance in respect to growing, packing, and despatch, receives the produce in Budapest, supervises storage and sale, and remits the proceeds of such sale to the producer, less a small charge for expenses. The business thus done by the society for its members represents a turn-

over of from £21,000 to £22,000 a year. A further branch has now been taken up in the collection of eggs for export. Word is sent week by week to the country sections telling them how many eggs the department will accept for two crowns (1*s.* 8*d.*). The local branch then gathers in the eggs from its members, and forwards them in boxes of 1,440 to Budapest, where they are examined and sorted before being packed for export. The profits are divided among the members as a bonus on the agreed price already paid to them. The experiment has been a complete success, and still more country branches are being vigorously organized.

The activity shown by the Hungarian National Agricultural Society in bringing about these various phases of an up-to-date organization is being well followed by the county agricultural societies. On this there is much that could be said, but the sphere of usefulness which a county agricultural society fills in Hungary could not, perhaps, be better illustrated than by the following description of the work done by the agricultural society of the county of Arad, as given by Mr. T. S. Dymond, of the Essex County Laboratories, in a paper on "Hungarian Agriculture" read by him at

a meeting of the Farmers' Club (London) in February, 1903:—

It has constituted itself a co-operative society for the purchase and sale of agricultural commodities. It has established in 16 peasant-farming villages of the county co-operative stores for the villagers. It has organized in the villages 15 co-operative credit banks affiliated with the National Credit Society, 12 co-operative societies for egg-collection, 7 co-operative dairies, and 1 co-operative society for the collection and sale of corn. It has provided premises for, and started, peasant farmers' clubs, with library, reading-room, etc., and winter schools of agriculture for the farmers' sons. Lastly, it has organized a model peasant farm of 57 acres in the heart of the peasant-farming district, which, in common with 80 other farms in other counties, is equipped with the implements and stock considered to be most suitable for the needs of the particular district, the cost being paid for partly by the county and partly by the State. All this it has done in addition to the periodical county or local shows which usually exhaust the imagination of our own county agricultural societies.

The "co-operative society for the collection and sale of corn" here referred to is a form of agricultural combination peculiar to Hungary, and deserves, perhaps, a more detailed notice than Mr. Dymond was able to give to it in his paper.

Experience had taught the farmers that, so long as each relied on his own individual powers in the disposal of his corn, he laboured under

certain distinct disadvantages. He was especially at the mercy of any "ring" of buyers which might be formed, for they knew that even if he could afford to keep back his crop for a more favourable market it was practically impossible for a farmer located any distance from a railway to hold his crop until the winter, because he would not then be able to get it to the railway station, owing to the state of the roads.

To meet the position thus created, the farmers in a number of districts formed co-operative organizations which secured loans from the credit banks for the construction of corn elevators on sidings near to some conveniently-situated railway station; and to these elevators the farmers would at once send their corn to be stored, the individual lots losing their identity, but representing, on the whole, analogous qualities of grain. By means of these elevators the available supplies could be held any length of time. Not only was the previous difficulty of getting them to the railway station in the winter obviated, but the ultimate collective sale meant the transport of the corn on the railway in bulk, thus effecting a considerable economy as compared with what would have been paid had each farmer sent off his own particular lot as a separate consignment. Indeed, there is at least one

instance where, by this means, the society was able to save sufficient on the railway rates to pay for the cost of the corn elevator. Financial arrangements were, at the same time, made by which the farmers obtained advances from the banks on the corn they sent to the elevators, and, with these advances in hand, they were able to wait for the balance until such time as the sale could be effected to the best advantage.

So well has this further development in the way of agricultural combination answered in Hungary that a central organization is being projected for the express purpose of encouraging and facilitating the construction of co-operative corn-elevators in all the corn-growing districts of the country.

Additional evidence of the way in which the general system is operating in Hungary may be obtained from an account of the second exhibition of the Hungarian National Agricultural Society," at Pozsony, communicated by Mr. Edward Brown to the *Journal* of the Board of Agriculture for December, 1902. There, among other things, one may read:—

> Various displays made by the local or village societies, which have done such good work in Hungary, were of special interest as showing what can be accomplished by combined effort. An arrangement is here worthy of note,

namely, that these societies are allowed to compete with the produce or stock of their neighbours. The result of this is that a selection is made first in a village, and whatever benefit accrues, either in the way of prizes or reputation, is shared by all—a species of co-operation which cannot fail to be of benefit. One of the most recent features in connection with the development of Hungary has been the remarkable growth of combined effort, chiefly in the direction of production, and the result has greatly increased prosperity in the rural districts. The displays made by the various agricultural colleges and schools were very fine, and I do not remember to have seen their equal even in France, where so much is done in this direction.

The relation of the State to agriculture in Hungary is seen alike in the remarkable extent to which the Government conducts agricultural operations on its own account, and in the almost paternal character of the aid it extends to the individual farmer. But however much one may be opposed, as a matter of principle, to an undue expansion either of State trading or of State aid, there are certain considerations in the case of Hungary which it would be unfair to that country to ignore.

In the first place we have the exceptional fact that, for political reasons, and mainly for purposes of national defence, the Hungarian Governments of bygone days acquired, as State property, a large expanse of the mountain and forest land which encircles the central plains of

Hungary; and that later Governments, having this land on their hands, sought to turn it to good purpose by assuming the rôle of thrifty and enterprising husbandmen. In a country where the agricultural interest is paramount they thought to set some good examples of agricultural methods, and try to induce the people to follow them.

In the next place the intellectual and economic *status* of considerable sections of the inhabitants —especially those of the type of the Slavs and Rumanians—coupled with a lack of initiative and an inadequate development of the trading spirit, made a liberal degree of State guidance and State help more justifiable in Hungary than would be the case to anything like the same extent in such a country as Great Britain.

The combination of these two conditions has helped to bring about results that are certainly remarkable enough in their way. In the first place the State owns 3,700,000 acres of forests, the management of which, together with that of 3,000,000 acres of communal forests, and 8,650,000 acres belonging to other corporations, is entrusted to the Minister of Agriculture. To encourage the re-planting of forests and barren territories the State distributed, between 1883 and 1901, no fewer than 358,000,000 shoots

free of charge. The revival of viticulture in Hungary, after the phylloxera devastations in the seventies, was mainly due to the action of the State, which encouraged the transformation of 100,000 acres of barren sandy wastes into vineyards with American grapes, and established 2,500 acres of nurseries capable of producing (eventually) 50,000,000 vine branches yearly, from 1,000,000 to 2,000,000 other vine stocks being sold, at a moderate price, from the forest vineyards. In the department of horticulture the State possesses thirty-six nurseries, with an area of 940 acres, producing every year 7,000,000 shoots and 500,000 grafted stocks; it has planted 5,600 miles of highways with fruit trees, short courses of lectures on fruit cultivation being given to road surveyors; and it has established drying kilns, wine-presses and distilleries to encourage the growers to turn to account the fruit they cannot sell fresh. It has had, for over a century, stud farms for the breeding of horses for army use, and to improve farm stock in general it has established depôts where 3,000 stallions are kept; and it has distributed as much as £12,000 in one year in prizes to horse-breeding societies. Altogether it spends about £125,000 a year in the interest of horse-breeding. Village communities will purchase from the

State not only stallions but the bulls, rams, and boars which it also breeds, the farmers voluntarily imposing a tax on themselves to pay for the cost. From the cultivated portions of the extensive stud farms large supplies of selected seeds are sold to farmers at a low price.

For the encouragement of cattle-breeding and dairy-farming, the State makes annual grants amounting to £42,000, and it has brought about the starting of 400 co-operative dairies. Sheep-breeding it has sought to foster by importing pure-bred English rams. There is, too, a State poultry farm, covering sixteen acres of land, and the Government has determined, by experiment, the kinds of poultry best fitted for particular districts. There is a State bee farm, intended as a model for bee-keepers to follow, while bee-farming is taught alike on the farm and in the training schools. Finally, in the matter of sericulture, the State keeps a silk-worm breeding station, provides the public with healthy eggs, propagates mulberry trees and distributes several million of them every year, and even buys the cocoons from the peasants who have bred the silk-worms, some two dozen State "cocooneries" being set up for this purpose.

In all this there is certainly a suggestion that, from an English standpoint at least, State aid

is carried to an excess in Hungary, and it is not surprising that one of a deputation of Essex farmers who visited the country in 1902 should have written:—"The impression left on the minds of many of us was that the State ran everything"; while a second said:—"It is always a debateable question to what extent State aid paralyzes individual effort, and the purchase and maintenance of stallions and bulls for stud purposes out of the rates would strike most Englishmen as a practice bordering on Communism." But, whatever doubts might well arise on these questions, there is no reason to question the extremely practical and thorough-going system of agricultural education with which the Government of the country have further sought to develop the welfare of the national industry.

Though, too, the State may have done so much, one must remember that to private initiative was due the introduction of that system of agricultural co-operative credit which, as I have shown, constituted the "backbone" of the latter-day revival.

CHAPTER X

AUSTRIA

IN Austria the principle of State aid in agriculture has been developed to an extent that is altogether abnormal, and without the exceptional conditions of the sister country of Hungary.

The chief progress made in regard to Austrian agriculture has been effected since 1890, when the first co-operative credit bank of the Raiffeisen type was formed. There are now in Austria over 2,000 institutions of this kind. Close on 800 came into existence in the three years between 1897 and 1900. The Raiffeisen banks have, in turn, been followed by many purchase societies, co-operative dairies, societies for the sale of wheat, fruit, hops, oats, etc.; societies of wine-growers, societies for the improvement of live-stock, and so on.

But the whole movement has been the outcome mainly of official action, supported by numerous and liberal subsidies. Most of the

Raiffeisen societies, especially, are administrative creations, due either to the State or to the municipalities, and showing little of that principle of self-help to which British farmers should, preferably, pin their faith. The associations in general are further authorized by law to call for pecuniary aid from the State in (among other things) the export of agricultural products, the employment of persons possessing technical or expert knowledge, the construction of buildings, the purchase of agricultural machinery and implements, and in the event of general financial difficulties arising.

It would seem to be a normal state of things in Austria that a Provincial Administration should hold meetings to distribute State funds among the various co-operative agricultural societies in a particular district. From both State authorities and municipalities, indeed, the societies get aid in the form of subventions, or loans either entirely free of interest or bearing a nominal rate of interest only. Then the governors of provinces, the prefets of cantons, the Provincial States' Committees, the Provincial Agricultural Councils, the priests, and the teachers in the elementary schools are all required to enlighten the rural populations on the importance and the utility of co-operative

organization, and to do all they can for its extension.

The extreme development of State aid has given rise to a certain degree of dissatisfaction in Austria, and a further group of agricultural co-operative associations has been created on strictly self-help principles, representing a revolt against the conditions above described. The general position is thus lamented by a writer in the issue for January 2nd, 1904, of *Die Genossenschaft*, the organ of the independent party:—

It was a terrible economic crisis that, in 1844, led the poor flannel weavers of Rochdale to establish their first co-operative stores, and in spite of—or rather, because of—the great distress then prevailing, success did not fail them. For fifty years was the model thus set up regarded as a pattern for others to follow. But in our country, and in other countries besides—though not in England—the position has been very different. Governments and political parties are interesting themselves in the combination movement, and striving to secure an influence over it. The people, in their turn, are willing to surrender any practical proof of self-help for a mess of pottage in the shape of a subvention or a cheap loan. Many Members of Parliament consider that they are conferring a favour on their constituents if they can, in any possible way, get various subventions for them from the national Budget, or, to speak more correctly, cast the obligations of those constituents upon the country. The State, they argue, must support the citizens, not the citizens support

the State. For unreflecting persons that is the newest and the most cordially welcomed solution of the social problem, especially as it affects the middle classes; while such a solution is favoured by the bureaucracy because it gives them a wide-reaching influence over the people in general. True it is that the influence of an intelligent and enlightened bureaucracy over the uncultured classes may be of practical service; but when brought to bear on people of a higher social scale it is likely to lead to positive harm, by favouring indolence and undermining confidence in their own powers.

As against arguments such as these it is pleaded that the aforesaid administrative creations are established on a sure basis from the start, and have their finances secured, so that the societies have a better chance of success than if they were founded by individuals who lacked experience, and were guided only by their own elementary ideas as to the lines on which an organization should be conducted.

In the Trentino district (where the people are essentially Italian in language and habits) agricultural organization has made especially rapid progress, as the result not alone of the helping hand of the Austrian Government, but of what the statistical report of the Italian National Co-operative League describes as "the admirable work in the way of active propaganda and wise organization carried out by the Catholic party, a

work," it adds, "that is well deserving of emulation" (*degno invero di essere emulato*). There are in the district about 400,000 inhabitants, mostly occupied with vine culture, and the first Raiffeisen Bank was established among them in 1891. "The wretched condition, socially and morally, of the population," says Pio Meyer in *Il Movimento nel Trentino*, "was the first factor that led to the organization of agricultural associations; the second was the Christian love felt towards his neighbour by the priest, Lorenzo Guetti." The associations formed by this pioneer became known as "co-operative families" (*famiglie cooperative*). By the end of 1902 there were in the district 131 Raiffeisen banks with 10,000 members, together with numerous agricultural co-operative associations of various kinds. In this same year the different bodies formed a "Federation of Rural Banks and Co-operative Associations."

CHAPTER XI

SWITZERLAND

THERE are some points in the story of agricultural organization in Switzerland which render that country deserving of attention both as an example and a warning.

A considerable expansion in the industries of Switzerland between 1870 and 1880 led to a steady flow of population from the country districts to the towns, the proportions of the numbers employed in agricultural and industrial pursuits respectively undergoing great changes in some of the leading cantons. The farmers found that under these circumstances their interests were being seriously prejudiced by the shortage of labour; but with the lesser profits they were making, because of the rapidly developing competition of other and newer countries, they could not afford to pay their workers the same rates of wages as the manufacturers in the towns were able to give. The conclusion arrived at, therefore, was that the agriculturists of

Switzerland would have to change their methods, from the point of view both of resorting more to machinery, in order to solve the labour problem, and of using chemical fertilizers in order to increase the volume, and decrease the relative cost, of production, so as to compete better with the foreigner. In other words, the farmer was to employ fewer hands but spend more money.

The drawback to this plan was the average cultivator's lack of capital—a difficulty only to be overcome by the creation of organizations which would enable the farmers alike to borrow on advantageous terms, and to effect the necessary purchases under the best conditions. The establishment of organizations of this type was, in fact, for the Swiss farmers, as Dr. Hans Müller relates in *Die Schweizerischen Konsumgenossenschaften: Ihre Entwicklung und ihre Resultate*, a matter of life or death. But, Dr. Müller goes on to say:—

> It took a long time for the peasant to work himself up to this conviction. An incarnate individualist, he resisted any idea of actually resorting to combined trading or co-operative effort, even when already convinced of the necessity of so doing. Finally, however, he saw it had become for him a question either of combination or of ruin; either of rising to a true sense of his position, and showing confidence in his neighbour, or of dropping out of existence. When once this alternative presented itself

mercilessly to the Swiss peasant, he, with good spirit and a lighter heart, and with, also, a skill at which one cannot fail to wonder, applied himself to the development of a great system of organized action.

The actual pioneer of the movement was a certain landowner in Räterschen (Canton Zürich), who had purchased wholesale a large supply of chemical manures on such lower terms than his neighbours were paying that they formed an agricultural association, in 1874, in order to secure similar advantages for themselves. Their example was followed in other localities, and in 1877, at a general assembly of members of agricultural societies in Zürich, Professor Dr. A. Krämer strongly recommended a general resort to organization for combined purchase of agricultural necessaries, in the interest both of economy and of quality. Even, however, when local combinations had been formed, the prejudices of the farmers made them reluctant to group their orders with those of farmers in other districts, and it was only in May, 1881, by the active exertions of a young parish priest at Elsau, in Dynhard, that the first approach to a district federation of local organizations was effected. From that time the general movement spread with great activity, and in 1887 there followed the formation, at Winterthur, of

a "Union of the Agricultural Associations of Eastern Switzerland."

Meanwhile the question had arisen whether the local organizations created with the primary object of supplying agricultural necessaries should not, also, furnish household requirements, after the fashion of ordinary co-operative stores.

The same point has been discussed in France and elsewhere, but, generally speaking, the more prudent advocates of agricultural combination have been averse to the mixing up of business and domestic considerations, and have advocated that the co-operative purchase of fertilizers and implements for the fields should be kept distinct from the co-operative purchase of coffee and sugar for the household. In Switzerland, however, different views prevailed, and not only did some of the local agricultural associations take up both branches, but the Union formed at Winterthur in 1887, as mentioned above, organized two departments, one for agricultural and the other for domestic purchasers.

The adoption of this principle led to a controversy which undoubtedly retarded the progress of the movement from a purely agricultural standpoint, and roused against it the whole body of general traders. While accepting the claim of the peasants that they were entitled to conduct

their own enterprises on their own lines, they resented any invasion by them of the grocery, drapery, and other businesses. The associations thus found themselves boycotted for a time, and they only surmounted their difficulties by importing supplies from other countries, or, in the case of fertilizers, by starting mills of their own.

Then some of the leaders in Switzerland of what, at the outset, was a purely agricultural movement, have, in the ardour of their zeal for the progress of mankind, utilized it unduly as a means of securing "social reform" in general; while the rank and file, in their turn, have not yet entirely abandoned old prejudices, and prefer to maintain sectional distinctions rather than sink their differences, and join together on a common platform for the achievement of a common purpose.

So it is, therefore, that although other federations (including one at Berne, which is doing good work in the way of grouping purchases) have followed the one established at Winterthur, and although agricultural associations have now been spread more or less throughout the country (in the form, not alone of purchase societies, but also of co-operative dairies, live-stock improvement associations, Raiffeisen banks, combinations for the collective sale of produce, and so

on), the movement has not, as a whole, shown the same degree of vigour, and secured the same degree of progress, in Switzerland as in some of the other countries with which I have already dealt.

CHAPTER XII

SWEDEN AND NORWAY

THE development of agricultural interests in Sweden has followed the same general lines, especially in regard to co-operative effort, as in Denmark. It was, in fact, the example of Denmark that inspired the action of the Swedish agriculturists, for the double reason that they wanted to meet effectually the threatened competition of their neighbours, and that they further hoped to get a share in the important trade in dairy products which those neighbours were opening up with Great Britain.

Between the two countries, however, there are some material differences. Whereas Denmark is a land that is almost exclusively agricultural, Sweden, in addition to her agriculture, has very large iron, iron ore, and other industries, which absorb an increasing proportion of the population, so that whereas in 1870 the number of those engaged in agricultural pursuits stood at 71·87 per cent., it is to-day only 55·32 per cent.

Then, again, in the neighbourhood of large towns, and especially Stockholm, it is found more profitable to-day to sell milk and cream to householders than use it for butter-making.

These various changes in the economic position have affected alike production and home consumption, leaving a smaller relative proportion of food products available for export. The fact, also, that Sweden imposes duties on imported feeding-stuffs (thus increasing the cost of production), while Denmark admits them free, has undoubtedly told against agriculture in the former country, as compared with the latter. In 1895, for example, prior to the imposition of a duty on maize, Sweden exported 22,000,000 lbs. of bacon. In 1901 the total was only 2,200,000 lbs., a falling off which cannot be adequately accounted for by the greater local demand, especially as the industrial workers in the northern districts prefer American bacon to Swedish.

In all these circumstances it is assumed that Sweden will not be likely to send to Great Britain larger quantities of food supplies than she is doing already. All the same the Swedish agriculturists benefit to the extent of close on £1,000,000 a year from the trade they do with Great Britain in the one item of butter alone,

and, with a good market in their own country, they have, altogether, done well, even though the results of their operations may not be so remarkable as in the case of Denmark.

The causes which have led to these results could not be summarized more succinctly than is done in a *Report on the Dairy Industry in Sweden*, drawn up in 1897 by Mr. Arthur Herbert, First Secretary to the British Legation in Sweden, who wrote:—

> Foreign butter wins its way because it is generally of good and uniform quality—at least, that is the case with the Swedish butter, owing to the fact that the methods of production are always reaching a higher degree of perfection. Cheapness is brought about, not because the value of land is less in Sweden than in Great Britain, or because the climate is better, or because the other expenses of an agriculturist's business compare favourably with our own. The reason must be sought in their co-operative methods of manufacture, which effect very great economies, and it is here that the British agriculturist who does not understand how profit can be made out of Swedish butter at the price it is sold must look for the explanation, coupled with the fact of the thoroughness of the agricultural technical education in this country.

How the co-operative movement has spread in Sweden can be shown by the fact that whereas there were in 1890 only 73 co-operative dairies in the country, this number increased to 302 in 1895, and stands to-day at 430. Nor

does even this highest figure tell the complete story, for the tendency is for the small dairies to be absorbed by the larger ones, and so disappear from the list altogether. A similar fate is overtaking many of the "proprietary" dairies. While, again, the 430 co-operative dairies represent only 26 per cent. of the total number of dairies, they produce 50 per cent. of the total output of butter in the country.

Co-operation has further been adopted in Sweden in the formation of "control" associations, societies for the purchase of agricultural necessaries, societies for securing the improvement of stock, societies for the collection and sale of eggs, and the various other combinations in vogue in Denmark, the Swedish farmers being no less ready than the Danish to join together for the purpose of securing common benefits, whether in the way of reducing cost of production or of obtaining the best possible return for the commodity produced.

In addition to the purely co-operative organizations there are in Sweden a number of agricultural societies which, among other things, hold fortnightly butter shows at Gothenburg or Malmö, such shows being subsidized by the State to the extent of about £1,100 a year. The dairies each send in four or five casks a year,

representing the different seasons, and the samples are analyzed with a view to keeping up the quality, awards being made to the dairies showing the best results. It is a significant fact that whereas at one time the private or "estate" dairies had the reputation of supplying the finest quality of butter, it is the co-operative dairies which now secure most of the prizes at the periodical exhibitions. The agricultural societies also import stock for breeding purposes, either selling the animals by auction to the farmers, or setting up breeding stations in various districts; and they will, likewise, advance loans for the starting of co-operative societies or to otherwise assist agricultural enterprises.

Of the thoroughness of the system of agricultural education in Sweden there is no possible room for doubt. To begin with, there is a State Agricultural and Dairy College at Alnarp, near Lund, which includes the following divisions or colleges:—(1) A higher agricultural college; (2) A lower agricultural school; (3) A higher dairy college; (4) A lower dairy school for men; (5) A lower school for dairymaids; (6) A gardening college; and (7) A farriery school; the course of instruction in each instance being both theoretical and practical. Then there is a Royal Agricultural College at Ultuna, near Upsala, the

object of which is to afford higher theoretical instruction in agriculture (not dairy subjects) to young men. In addition to these high colleges there are in Sweden eighteen theoretical and twenty-four practical agricultural schools, to the support of which the State contributes. Then the list of State officials includes an instructor in cattle-breeding, another in sheep-breeding, and still another in dairying, together with twenty-five instructors in general agricultural matters, with special reference to drainage, manures, and the cultivation of the land; while the provincial agricultural societies employ about twenty-four travelling dairy instructors who deliver lectures or give practical advice to the farmers and dairy workers, together with travelling experts in agricultural machinery and appliances, who are equally ready to advise in case of need. There are, also, a number of "dairy stations" which have been set up by private persons, with the help of grants from the State, where dairymaids can get instruction without going to the more pretentious colleges.

With the opportunities which have thus been opened out to him, the Swedish farmer of to-day is found to have a much more complete grasp of the science of agriculture than was formerly the case; and when to this happy admixture of

scientific knowledge with his practical experience he adds a willingness to resort to friendly co-operation with his fellows for any or every possible purpose that tends to their mutual advantage, it is not surprising that he should have succeeded so well in holding his own in the way he has done.

In Sweden's sister country, Norway, there are 650 creameries, and their production of butter and cheese in 1901 amounted to 7,716,000 lb. and 9,123,000 lb. respectively, the quantity of milk employed daily being about 220,000 gallons. Nearly all the creameries are co-operative.

CHAPTER XIII

FINLAND

TO the average British agriculturist Finland —if he ever thinks of that country at all — probably represents little more than a geographical expression, and, so far as he is concerned, a wholly negligible quantity.

At first sight there would seem to be no reason why he should regard it from any other point of view. It is true that in superficial area Finland is as large as England, Wales, Scotland, and Ireland put together. But a considerable proportion of this area extends into the Arctic Circle, 12 per cent. of it is represented by lakes, and 15 per cent. by marshes and bogs, while of Finland's *terra firma* three-fifths consist of forests. In fact, up to three or four years ago only 8 per cent. of the surface of the country was under cultivation. Then the entire population of Finland represents an average of only about twenty-two persons to the square mile.

Living in such a land as this, and so remote

from the centres of civilization, there might well seem to be little chance for such a community to establish a position for themselves as providers of food supplies for the people of Great Britain, and, also, to merit the attention of the world in general by the development among themselves of a scheme of agricultural combination under conditions altogether unique in their way. Yet the Finlanders have done both of these things, and in doing them they have found a successful outcome from a condition of agricultural depression which at one time was quite as serious for them as anything in this direction that has been experienced in England.

Finland remained unaffected by the changes brought about in various other countries of Europe by the competition of foreign wheat, for Finland does not grow wheat. But she can grow the rye which forms a staple article of food for her people, and of this she grew a great deal up to about 1880. Then her agriculturists began to suffer from the abundant supplies of rye coming to hand from Russia, such supplies being eventually sold in Finland at a price that represented one-half the sum at which alone the Finnish crops could be produced at a profit. There was no question here of putting a hostile tariff on the Russian rye, since Russia

would naturally not have consented, and at first it looked to the Finnish farmers as if ruin stared them in the face.

But they were men of resource, and they determined that if they could not get a living in one direction they would in another. They saw that Denmark was opening up an important trade with great Britain in regard to dairy products, and from their point of view there was no reason why they should not do the same. So they resolved not to attempt to struggle against Russian competition, but to abandon the growing of rye for themselves, and turn their attention, rather, to the feeding of cattle and the creation of an export trade in butter.

In order to carry out this programme the more effectually, some of the most capable of the Finnish farmers went to Denmark to make an exhaustive study of Danish methods, and a number of Danes were engaged to go to Finland and organize creameries there on the model of those existing in their own country. At first the creameries so established were mainly proprietary ones; but the pecuniary advantages of combination soon began to be realized, and at the present moment the proprietary dairies in Finland are outnumbered by the co-operative. Then to assist the farmers in opening up a

market for their produce, the Government of Finland made a contract in 1886 with the Finnish Steam Navigation Company for the establishment of regular and direct steamship communication between Hango and Hull, this arrangement being succeeded, in November, 1902, by a fresh arrangement under which the Government granted a loan of £72,000 for ten years, without interest, to a new company, the Nord, for the running of weekly boats from Hango to Newcastle-on-Tyne. In addition to this, the Finnish Government, with a view to improving the breed of cattle in the country, make loans for ten years, without interest, to farmers who desire to import Ayrshire cattle, which are found much more suited to climatic conditions in Finland than the less hardy Danish stock. But the farmers accepting the loans have to make their purchases through the Government "cattle consultant," who comes to this country every year to select the animals to be bought, the number so purchased generally being from 100 to 150. This system has been in vogue for the last eight years or so.

As the outcome of these various conditions Finland sent to this country in 1897 no fewer than 14,561 tons of butter. Since then there has been a succession of unfavourable seasons

in Finland, leading, at times, to an almost complete failure of crops in the central parts of the country. Consequently the supplies have fallen off of late years, and in 1902 the exports of butter from Finland stood at 9,670 tons—a distinct decrease as compared with 1897, but a business of respectable proportions, all the same, for a small country, inasmuch as it represented a value of £944,000. At the present time two-thirds of the Finnish butter imported reaches England *viâ* Hull, and one-third *viâ* Newcastle-on-Tyne, nearly the whole of it being consumed in the North of England or the Midlands.

The most interesting phase of the agricultural revival in Finland typified by this substantial trade in dairy produce is to be found in the very active development of agricultural combination brought about during the last few years in circumstances which, as mentioned above, are altogether unique in their way.

In 1895 a course of lectures on the need of co-operative effort in regard to agriculture in Finland was given by Dr. Hannes Gebhard, Professor of Agricultural Economics at Helsingfors University, and these lectures were attended by people from all parts of the country. Subsequently some landed proprietors made a tour of investigation in different countries to ascer-

tain for themselves what was being done there in the direction in question, and on their return they started a small agricultural society at Helsingfors. Then in 1899 Dr. Gebhard published a book in which he gave details respecting the growth and development of agricultural co-operation in France, Germany, Denmark, and elsewhere.

Up to this time the movement had been of a comparatively feeble character; but it was suddenly taken up with great vigour as a response and set-off to the policy of Russia towards Finland, and it so happened, curiously enough, that the persons who, in the first instance, showed the most zeal in the matter were not the agriculturists, the socialists, or the clericals, but the students in attendance at Helsingfors University. Whatever the particular studies on which they had entered, they flocked to the lectures on agricultural subjects, they eagerly read whatever was available thereon, especially with regard to agricultural co-operation; and when they returned to their homes, whether at the close of their University career or only in the holidays, they did so as active propagandists of the agricultural co-operation movement. Their own particular motive was one of patriotism pure and simple. They

saw the Russification of their once independent land proceeding with relentless vigour; they saw a country naturally poor in danger of being crippled by an expanding military budget; they saw it suffering from severe depression, the result of frosts, inundations, crop failures, and other causes; and in their youthful ardour they concluded that the best service they could render to the land they loved would be to help in the development of its natural resources, creating, at the same time, a closer bond of union among the people themselves. While, therefore, in Russia political and economic conditions had done so much to foster Nihilism and conspiracies in general, in Finland the same causes had converted the youth of the country into the most practical of patriots.

So the students hastened to impart enthusiastically to others all the ideas they had themselves imbibed as to the advancement of agriculture, and they were soon joined by members of the agricultural community whose attainments or whose views were in advance of those of people round about them. The whole subject, too, was discussed in newspapers, periodicals, books, and pamphlets, and in these various ways interest in it was rapidly spread throughout the land.

Then followed, in the autumn of 1899, the definite formation of a Society for Promoting the Application of Co-operation to Agriculture in Finland. Of this society, known as "Pellervo," Dr. Hannes Gebhard was chosen as president. It aimed at becoming a central organization which would encourage the formation of local bodies; publish literature in the special interests of the peasants; promote the starting of co-operative dairies, rural credit banks, purchase societies, etc.; provide model rules and regulations for such bodies; send out lecturers, instructors, and organizers all over Finland; inquire into the best means to be adopted for increasing the sale of Finnish dairy products abroad; and otherwise seek to develop the agricultural interests of the country. These were the lines on which operations were begun, the Government showing its sympathy with the movement by making a grant-in-aid of £800 a year for a period of five years.

At the time the Pellervo was started there were already in existence in Finland seventy-four non-co-operative agricultural organizations corresponding to the "Syndicats Agricoles" in France, or the "Bauernvereine" in Germany. Within the first nine months of the formation of the Pellervo no fewer that 150 more of

these local societies were established, and on December 1st, 1903, the total number stood at 341, the membership being over 20,000.

The creation of purely co-operative bodies for agricultural purposes was only rendered possible, in September, 1901, by the passing of a law giving them legal *status*, and it was with the making of this law that the real activity of the Pellervo commenced. Before the year closed there had been established in connection with the Pellervo a Central Co-operative Commercial Bureau for the collective purchase of manures, feeding-stuffs, seed, grain, salt, machines, petroleum, dairy requirements, etc., for agricultural societies grouping the orders of their individual members. It is especially interesting to know that the example set by this Central Bureau inspired the farmers of Northern Finland and Lapland to arrange for a similar organization on their own account, so that a wholesale society for the purchase of agricultural necessaries has been started in the little town of Kemi, which is within the Arctic Circle.

It was felt, however, from the outset, that no great progress would be made until there had been set up a Central Co-operative Bank which would be able to give practical assistance in the formation throughout Finland of local

agricultural credit banks of the Raiffeisen type. The organization of this Central Bank was a remarkable event in its way. The capital it was proposed to raise was fixed at £12,000, in shares of £4 each, to be subscribed for by the agriculturists themselves. The country was then suffering from severe depression, but the sum required was raised in six weeks by 1,360 individuals, of whom 83 per cent. bought only either one or two shares each, and 11 per cent. from three to five shares each. Many of the peasants had great difficulty in raising the sum necessary for the purchase of even one share; but they made a great effort, being strongly impressed with the good work the proposed Central Bank might do, and applications for single shares came in from every part of the country. The Central Co-operative Bank of Finland is, under these circumstances, regarded by the promoters as "the most democratic institution of the kind in the world." It seems, at least, to have been the most effective means of promoting agriculture yet adopted in Finland.

The loans granted by the Central Bank are advanced exclusively to local agricultural banks, and, thanks to its aid (and, also, to the improvement in its finances brought about by an annual subvention of £800 a year granted to it by the

State in June, 1903), agricultural credit banks are now in course of formation in all parts of Finland, the total number at the beginning of December, 1903, being fifty-one.

With the improved financial resources thus opened up to the agricultural community, a great impetus has been given to the formation of the agricultural co-operative organizations sanctioned by the law of September, 1901. Already there are 175 registered societies of this type (among them being seventy-two for the working of co-operative dairies) besides a number of non-registered bodies. The total of registered and non-registered is estimated at 300. As indicating the amount of actual business done by the various kinds of organizations, it may be added that the sum total of the "grouped orders" for 1902 was £100,000, those of the Central Co-operative Bureau alone amounting to £60,000. Such figures speak well for the vigour of a movement still in its infancy in a land of only 2,700,000 inhabitants.

The degree of interest that is being aroused in the whole subject is further indicated by the fact that a three days' conference on agricultural organization, held in the University of Helsingfors in April, 1902, was attended by 800 delegates—teachers in agricultural schools, agri-

cultural instructors, ordinary peasants, and others—from all parts of Finland, Lapland included. But such interest is less surprising in view of the amount of zeal and energy that the Pellervo society is throwing into its work. It publishes manuals on agricultural subjects, a monthly agricultural review which has 27,000 subscribers, and a *Year Book*, which is a bulky volume of over 600 pages; it issues model rules and regulations, forms, etc., for the use of co-operative societies; it has six organizers whose business it is to go about the country explaining to the farmers the principles of the movement, and instructing the officers of agricultural societies in regard to technical and commercial details; it holds, with the help of these organizers, as many as 300 conferences a year; and it has, in the central office in Helsingfors, a secretarial staff the members of which, among other duties, give advice to local societies, and carry on an ever-increasing correspondence, the letters dealt with by them between January 1st and December 1st, 1903, representing a total of 4,000. The original subsidy of the Pellervo of £800 a year from the Government has been supplemented by a further grant of £240 to provide a salary for a special instructor in the management and working of

co-operative dairies, and to allow of the preparation and publication by the Society of detailed statistics respecting the dairy industry. The Pellervo has also received about £1,200 in donations.

The results already obtained with such modest finances are distinctly good; but they are regarded by the leaders of the movement as having chiefly laid the foundation for better results still to come. There is even the hope that at some future time Finland may stand more on an equality with Denmark in supplying butter for British breakfast tables; and if we are to go on importing prodigious quantities of dairy produce from abroad, there is no reason why Finland—a country which has not only won much cordial sympathy from the English people, but takes from us textile goods, machinery, tools, artificial manures, railway rails, railway engines, and other things besides, fully equal in value to what she sends to us—should not have a fair share of our patronage.

But whatever the further development of agriculture in Finland may be, the one thing certain is that the organization of her dairy industry has enabled her to fully recover from the agricultural depression that overtook her twenty years ago. Apart from the unfavourable

seasons of the last few years, the agriculture of Finland is in a much more healthy and prosperous condition to-day than it was in the early eighties, and those imports of cheap rye from Russia which then seemed to threaten her with disaster are now looked upon as having been little more than blessings in disguise.

CHAPTER XIV

SIBERIA

PROBABLY the last country in the world from which the British agriculturist has thought to meet with competition on his home markets is Siberia. But the rate at which the imports of dairy produce from Siberia into this country are increasing is prodigious. In 1900 they represented a value of £980,000; in 1901 the figure rose to £1,655,000; and in 1902 it stood at £2,196,000. In fact, Russian butter was, for a time during the summer of 1903, coming to London at the rate of 1,000 tons a week, and there were large quantities of eggs and poultry besides. The first dairy in Siberia for the manufacture of butter for export was not set up until 1893. Yet to-day the number of such dairies in the country is over 2,000, and their operations, which are still rapidly extending, already cover an area of 160,000 square miles. As for the total production of butter in Siberia, it increased from 5,000,000 lbs. in

1898 to 67,000,000 lbs. in 1901. The value of Siberia's total butter export in 1903 was put at £3,000,000.

How can so great a business as this have been developed, in so short a time, in a land which the English farmer has, probably, hitherto associated with frost, and snow, and political exiles, rather than with successful and competitive agricultural pursuits?

To begin with, the ordinary idea of Siberia is an altogether erroneous one, for the country has vast expanses of virgin soil of wonderful fertility, and though the summer is short, the climate uncertain, and the locusts destructive, there is scope for almost limitless production. But the natural advantages of the land remained undeveloped until the advent of the Trans-Siberian Railway, which put the country in touch with the Western world; though even then the results indicated above have been due far more to foreign than to native enterprise.

The first person in Siberia to make butter according to modern methods was an Englishwoman, married to a Russian; and the first dairy with an equipment of separators for butter production was opened in the district of Kourgan by a Russian. Notice was attracted to the Siberian product by an agricultural show held

at Kourgan in 1895, but still more effectually was the attention of foreign buyers called to it by an exhibition organized at St. Petersburg, in 1899, by the Imperial Economic Society.

No sooner did the Danes realize the possibilities of Siberia than they went there and began to start butter factories on the same lines as in Denmark—with this difference, however, that they did not attempt to bring the Russians into a scheme of co-operation, but preferred to set up proprietary dairies instead. There was effective organization, but the peasants were paid for the supplies they brought to the central stations, without sharing in the profits. They were helped, however, in other ways, capital being advanced to them, in case of need, for the purchase of stock, etc., and the business grew with great rapidity. Starting at Kourgan, it soon spread to Omsk, Kainsk, Ob or Novo-Nikolaievsk, Barnoul, Biisk, Minussinsk, and other centres, where it now constitutes the main resource of the population. In the Barnoul, or Altai, region, especially, the industry has undergone great expansion. The quantity of butter despatched from Ob station in 1899 was only six railway truck-loads, or 738 cwt.; whereas in 1902 the total from this one centre was 995 truck-loads, or 161,000 cwt. At Omsk there

are no fewer than eight Danish firms established, and many Russian, English, and German firms have likewise joined in the enterprise. There are two Danish houses alone in the country which are said to be exporting at the rate of 10,000,000 lbs. of butter a year.

It was not without a good deal of difficulty from local officials that "foreigners" were able to play their part in developing even so desirable an industry as this in a country such as Russia, however favourably disposed the higher officials might be to the scheme; and even the higher officials have sought to extend the business along the lines of co-operation among the Russian peasantry themselves rather than in the direction of encouraging outsiders to set up still more of their proprietary establishments. To this end a number of co-operative dairy associations have been formed, the Imperial Government granting to them loans not exceeding £320, at 4 per cent., repayable within five years, for the purposes either of a co-operative dairy or of refrigerating stores. The money is generally advanced on the security of the live-stock belonging to the peasants, and the profits are divided among them according to the amount of milk they have supplied. In other cases dairies are operated by the

local communes, and are regarded as communal property.

There are, however, in Siberia, special difficulties in the way of developing the industry along such lines as these. The peasantry have not yet risen out of the depths of ignorance in which they have so long been steeped; their tendency to herd together in villages is prejudicial to real agricultural development, and constitutes, together with drunkenness and corruption, one of the curses of the country; while their eagerness for money, combined with the keen competition between the butter merchants, makes them more disposed to sell their milk to the highest bidder than to co-operate for the working of it up on their own account. The allegation is even made against some of them that they are so ready to dispose of all their available supplies that they do not keep back sufficient milk to provide for the wants of their own families. Another impediment to the formation of co-operative dairies in Siberia is the difficulty of finding disinterested and honest managers.

The Imperial authorities are doing all they can to promote the movement, for, in addition to advancing loans, and helping in other ways, they have appointed official dairy instructors, each of whom has a group of dairies under his super-

vision. The Moscow Imperial Agricultural Society is likewise showing much activity in the matter. It has opened branches at Kourgan, Tomsk, and Omsk, and these branches keep in close touch with one another, and are carrying on a propaganda among manufacturers and exporters with the special view of securing a direct export of the produce to London—which is regarded as the chief market—and doing away with the Danish middlemen. But up to the present only about one-twelfth of the existing establishments are co-operative or communal, and the Danish middleman remains the predominant partner.

How under these various conditions the industry has expanded is shown by the following table:—

YEAR.	NUMBER OF DAIRIES.	EXPORTS.
		Cwts.
1898	140	48,360
1899	334	86,730
1900	1,107	354,670
1901	1,800	599,720
1902	2,035	685,500

The Government run four butter trains a week during the summer season. Starting from Ob, each train picks up waggons at various stations (Omsk generally supplies four) until the full complement of from 25 to 28 has been

reached. Three of the trains go to Riga and Windau, the destination of the fourth being St. Petersburg, Novi Port, and Reval. Each of them travels at *grande vitesse* speed, and takes precedence of all ordinary goods trains. Refrigerator waggons, painted white, are provided for the traffic (about 1,000 are now available), and theoretically there should be a supply of ice at every important station, either for use in the waggons or for keeping the local supply of butter fresh until the train arrives; but in practice, as may well happen in Russia, the railway arrangements are distinctly defective. At one station, for instance, there will be no ice, and at another there will be ice in waiting, but no one to put it into the waggons. From Omsk (the headquarters of the industry) to the port of Riga the time taken was, up to recently, fourteen days, but the transit has since been expedited. From Riga the butter comes weekly either to London, to Hull, or to Leith. From Windau supplies reach London or Newcastle *viâ* Copenhagen, and still other weekly consignments arrive in London from Reval. The cost of the land transit from Omsk to Riga is about 7*s.* 4*d.* per cwt. From Kurgan to Riga it would be 5*d.* per cwt. less; from Petropavlosk 3*d.* per cwt. less; from Kainsk 3*d.* per cwt. less; from Ob

6*d.* per cwt. more; from Barnoul 1*s.* 6*d.* per cwt. more, and so on, these low freights being, of course, fixed by the Government for the express purpose of facilitating the export of the produce. From Riga to London direct, including all wharfage and landing charges, the freight works out at between 2*s.* and 2*s.* 6*d.* per cwt. So the butter purchased at Omsk at the rate of, say, 11 roubles per pood, or £3 12*s.* 9*d.* per cwt., costs £4 2*s.* 3*d.* by the time it reaches London. The total distance from Omsk to London is 3,600 miles.

Two qualities of butter are exported from Siberia—table butter and cooking butter; and there is a special reason why much of the latter quality—as well as a good deal of the former—should be consigned to Denmark for consumption in that country, Great Britain and Denmark being, in fact, the two chief importers of Siberian dairy produce. Prior to the introduction of the co-operative dairy system the butter made by the Danish peasants was mostly of an uncertain type; but when the peasants left off producing each his own little lot, and butter was made only in large quantities of uniform quality, the inferior kinds disappeared. There was, however, a commercial demand for these inferior, and consequently cheaper, kinds. The

chemical conditions which bring about a rancid flavour in butter, and make it unsuitable for the table, are volatile, and driven off by the heat in the process of baking. Butter which would not be palatable on bread may, therefore, still be quite suitable for the making of confectionery. So it is that "confectioner's butter" is a well-recognized article of commerce. But with the improvements effected in the Danish system of production there was no longer sufficient of the "confectioner's" variety in the country to meet the demands of the pastry-cooks. Consequently the Danish traders, while sending their own produce to Great Britain, imported at first "confectioner's butter" from the United States, Galicia, the interior of Germany, and other countries, a considerable trade growing up in the article in question. But this trade is now done exclusively with Russia, owing to the lower freight, while a good deal of Russian butter of a superior quality is used in Denmark as an ordinary article of diet because it comes cheaper than the Danish, which can be much more profitably exported to Great Britain.

In addition to the substantial quantities of Russian butter sent to Denmark for consumption there, much also goes to Copenhagen to be "graded" by the Danish experts, and, if ap-

proved, re-consigned to England. There have been suggestions that Russian butter so landed in Denmark is forwarded thence to ourselves as Danish; but the laws of the country are severe against any such deception, and the Danish producers have voluntarily agreed upon a brand with which all their home-made butter is marked when exported. Large supplies of Siberian produce were also sent, prior to the war, to points on the Pacific coast, and to China and Japan.

What the future development of the industry may be is an interesting problem both for Siberia herself and for those other countries, including British Colonies, likely to be affected directly or indirectly by her entrance as a formidable competitor on the world's food markets. Of the Trans-Siberian Railway it has well been said by the British Commercial Agent in Russia, Mr. Henry Cooke, in a report on the "Trade of Siberia," that it has "already served as a spur to the colonization and civilization of this huge inert expanse of territory, whose very name hitherto stood but as a symbol of isolation"; while as regards the rural industries which have followed the railway, I have the assurance of a trader intimately acquainted with recent developments in Siberia that they have been "a perfect God-send" for the peasants. "The people," writes

my authority, "have been literally saved from starvation by what they have received for their butter. Yet they are anything but grateful. Siberia's population exists largely on English money, but curses the giver."

The point, however, with which I am here mainly concerned is not either a fiscal or a sentimental one, but the practical consideration that the exceedingly rapid growth and the truly enormous expansion of the Siberian dairy industry, on the lines described, are directly due to that system of effective and thoroughgoing organization which, whatever the precise form it may assume, and whatever the particular country in which it may be developed, constitutes in present-day conditions the indispensable basis for any real success in agricultural pursuits.

CHAPTER XV

SERVIA

THE conditions from which organized effort has sought to rescue the agriculturists of Servia were at one time unspeakably bad. Crippled by taxation, and his normal condition of impoverishment made worse by occasional crop failures, the Servian farmer in his struggle for existence had two natural enemies who profited by his misfortunes, and preyed upon him for all that he was worth. The one was the shopkeeper in the towns, the other was the innkeeper in the villages.

It was to the shopkeeper he went when he was obliged to borrow money for his farming operations. The ordinary banks were far beyond the reach of modest cultivators who had no adequate security to offer, and a tradesman was the only alternative. It was convenient to go to him, and the shopkeeper himself was ready enough to lend. The drawback to the arrangement was that the shopkeeper's recognized rate

of interest was one franc per month for every ten francs—say 120 per cent. So profitable was the business that people became shopkeepers in the towns for the express purpose of lending money to customers, not caring whether the shop itself paid or not. The poor farmer might be ruined, but that was, for them, a mere matter of detail.

The innkeeper in the villages was not a money-lender. He preferred to leave that branch of the business of plunder to the trader in the towns, and to take up one which he could work to his own particular advantage. Most of the innkeepers in Servia are Greeks, and the Servian Jew who lends money has the reputation of being a man of modest pretensions compared with the Servian Greek who doesn't. In any case the village innkeepers had a way of inducing the farmers to sell their produce to them, instead of going to market with it, and the sale was often effected in this way at a price which represented a very small profit indeed for the man who had produced the crop, and a large profit for the innkeeper who assumed the rôle of middleman.

What the Servian farmer stood especially in need of, therefore (though there were other things besides), was to be rescued from the clutches

of these two sets of harpies, and it became evident that he could not work out his economic salvation if left to his individual resources. An effective combination was absolutely indispensable, and the first thing required of such combination was that the peasants should be provided with an easy system of agricultural credit. People's Banks had been in existence since 1883, but these did not sufficiently meet the case of the poorer cultivators. What was needed was the starting of village banks of the Raiffeisen type. These alone could give the peasant the kind of credit which would be of real service. But he wanted more than easy credit. He wanted, besides, some practical assistance both in the spending of the money he borrowed and in the disposal of the crops he raised.

Servia is not a country which offered the same scope as France (for example) in the way of an elaborate network of agricultural syndicates and other combinations for a variety of purposes, and what has happened there is that the agricultural credit banks, which began to be set up in Servia in 1893, have practically covered the whole ground of agricultural organization. They not only receive deposits and make loans to the farmers, but they themselves will see to the buying of cattle, seeds, fertilizers, implements,

and other things, thus serving the purpose of a supply association; they procure the agricultural machinery which local associations hold in common; they undertake the sale of produce, and they also arrange for various forms of insurance, including insurance against sickness, against famine resulting from loss of crops, and also against prejudice to crops due to an inadequate supply of labour. It is true that some of these functions will be delegated to subsidiary bodies, but the agricultural credit bank is the controlling spirit. Thus, in the report of the Union of Agricultural Co-operative Societies in Servia (a federation formed in 1895) for the year ending June 30th, 1903, mention is made of 228 agricultural credit and savings banks, while the number of exclusively purchase societies is given as only two. Yet the aforesaid banks, in addition to granting during the year 8,209 loans, representing a total of £26,500, bought agricultural necessaries to the extent of another £15,000. These may be small figures compared with corresponding returns in France and Germany; but, considering that Servia is a small and a backward country, and that the movement here described only began in 1893, the results stated are distinctly creditable.

The report further mentions that while 58 fresh agricultural societies were formed during the year, the net total was not increased by that number, inasmuch as 13 dropped out of existence. The reason for this fact is that the secretary of an agricultural co-operative association in Servia is generally the parish priest or the schoolmaster, and should these persons leave the district, there may be no one sufficiently well educated to take their place. A return made by 253 societies shows that of their 12,361 members 6,218 could read and write, and 6,143 could not. So we get the further fact that when the Central Union started a forward movement in support of its propaganda, it arranged to give lectures on purely agricultural subjects in fifteen towns or villages, and to begin the training of young people in the duties of organizing secretary in fourteen.

The Central Union issues, also, an agricultural newspaper, many pamphlets, and an elaborate and extremely practical handbook. In this way good educational work is being done, in addition to the material benefits afforded to the agricultural community. In still another direction, social peace is actively promoted in Servian rural districts by the institution known as "The Court of Good Men," which it is one of the aims of

the agricultural co-operative associations there to promote. "The Court of Good Men" is really a board of arbitration for the settlement of local disputes, so as to avoid alike the spread of ill-blood and the waste of money in legal proceedings. The report already referred to shows that during the year ending June 30th, 1903, no fewer than 103 cases came before these courts, and out of the 103 there are three only which are described as ending unsatisfactorily. Most of the cases turned on questions of right of way or the appropriation of a slice of a neighbour's land in the process of ploughing the unfenced fields; but a certain number dealt with claims for money due, and still others related to "insults to one's honour." But, whatever the points in dispute, the value of the services rendered to the parties concerned in obtaining so large a proportion of friendly settlements may well be set to the further credit of the local organizers of agriculture.

So the conditions in Servia are being substantially improved, and that country, also, is joining with zest in the scramble among the nations for the privilege of furnishing us with our food supplies. From a bacon factory set up in Belgrade in 1901 there have come to England in the course of a single year 19,750 cwts.

of bacon, obtained from 16,120 pigs, though up to quite recently the Servian farmers paid little attention to pig-breeding, and none to fattening for the markets. Of poultry, too, Servia supplies us with considerable quantities, especially for our Christmas markets, and she is also opening up a good trade with us in eggs, judging from the fact that a consignment she despatched to London in November, 1902, filled four railway waggons.

Servia may be a small country, and a poor and uncultivated one; but she has re-organized her agricultural methods, she has re-established her farmers, and she now feels quite equal to sending her surplus stocks all across Europe to compete with the British producer in his home markets.

CHAPTER XVI

POLAND

IT was not until 1900 that the first agricultural association on co-operative lines was started in Poland, yet already the practical utility of this form of combination has been abundantly proved in a country where agricultural conditions had suffered from a long series of adverse circumstances.

There was a time in the history of Poland when the peasants, instead of paying rent, worked for the landowner, to whom they were so much bound that they could not leave the land without his permission. Even when this requirement was abolished, they still did work in lieu of paying rent, and though they were granted the right to own land, comparatively few of them had acquired possession of their holdings down to 1860. Four years later the peasants had a grant made to them of the land they lived on, and they were now freed from any obligation to work (except as wage-earners)

for the previous owners thereof. These individuals consequently lost a good deal of the cheap labour on which they had formerly relied, the cost of production being thereby increased. This did not matter very much so long as good prices could be secured for the grain; but a serious position was reached when those prices fell 40 per cent. as the combined result of the great production in the United States and of the tariff war between Russia and Germany.

Meanwhile the substantial expansion of industries, fostered by a high protective tariff, had drawn off more and more of the rural populations into the towns, thus further decreasing the supply, and increasing the cost, of agricultural labour. Other causes tending to the same result were the increasing stream of emigration, the tendency for the labourers to wander into Germany and Austria-Hungary in harvest time, attracted by the higher wages paid there than in Poland; and the dividing up of the large estates into small lots, which—with the assistance of the (State) Peasants' Bank, when necessary—were purchased by the peasants, whose labour thus became still less available for the larger proprietors.

One of the main objects sought by the co-

operative agricultural societies now to be found in each of the ten governments in Poland has, therefore, been that of facilitating the more general use of machinery, for its own sake, for the purpose of helping the large proprietors to solve the labour problem, or for promoting the interests of the small holders, many of whom found it difficult enough to carry on their operations at a profit, and regarded as the greatest of boons the possibility of acquiring, or obtaining the use of, machines and implements on the most advantageous terms.

In some cases (as the British Consul-General at Warsaw relates in a report to the Foreign Office) the society enables a member to secure machinery at cash price on credit; in others it will itself purchase the machinery and let it out at a low rate to farmers. From 2*d.* to 5*d.* will be charged per day for a plough; from 5*d.* to 2*s.* for winnowers; and from 2*s.* to 2*s.* 6*d.* for drills. The Warsaw society is said to have already obtained machinery to the extent of £29,000 in a year. The societies also deal in artificial manures and seeds, buying at wholesale prices, and selling retail, on credit, at an advance of only 5 per cent. on those prices. Mr. Murray says in his report for 1900 that "naturally this action on the part of the societies has led to great op-

position on the part of the dealers, who allege that the societies should confine themselves to arranging shows and trials, and to improvement of the roads and breeds of cattle, and collecting of statistics"; but in his subsequent report he was able to say:—

1901 was a very good year for the Polish agricultural societies, and proved that these institutions are extremely useful to agriculturists as a means for buying articles for agriculture and for selling its products on terms they could not otherwise get. The turn-over of some of these societies was very considerable, when it is taken into consideration that it was the first year of their existence, that their capital is very small, and that they have to compete with the middleman, whose efforts, now he is losing ground, are more than doubled. . . . British firms, and more especially makers of agricultural machinery and implements, should very seriously consider opening up business connections with these societies, as their importance, in view of the special facilities which have been granted to them by the Government as to freights, loans, etc., is sure to increase very considerably, and they will become about the most important buyers of articles connected with agriculture.

In addition to the purchase of machinery, etc., agricultural organization is likewise being developed in Poland in the interests of the dairy industry. Other societies have taken up the question of improving the breed of cattle. A Mutual Insurance Society against damage done by hail has also been started.

Special co-operative agricultural credit banks have not yet, apparently, been formed in Poland; but Mr. Murray says that the facility with which hop-growers can now obtain credit from the State Bank does much to encourage hop cultivation, and has rendered an incalculable service to the hop-growers. Advances are also made by the State to grain-growers. In the matter of agricultural education Mr. Murray says:—"A good step that has been taken recently is the establishment of gardens at primary schools, that the children may learn something about gardening and the care of fruit trees, which they plant themselves on fête days arranged specially for the purpose." In former times, it seems, Polish landowners would require their peasants to prove that they had planted a certain number of fruit trees before they would allow them to marry. This old custom has disappeared, but Poland has now got 120,000 acres of fruit orchards, and fruit culture is regarded there as an industry especially deserving of encouragement.

One drawback to the complete success of agricultural organization in Poland is that, for political reasons, no federation of societies operating over the whole country will be permitted by the authorities, and each group must be

content to work within the boundaries of a single government. But, in spite of this limitation, the movement has made an excellent start, and the position of the Polish agriculturist has already undergone a decided improvement.

CHAPTER XVII

LUXEMBURG

EVEN in so small a State as the Grand Duchy of Luxemburg, which occupies only 1,585 square miles of territory, and has not much more than 200,000 inhabitants, the organization of agriculture has been taken in hand with a thoroughness that compares favourably with the conditions to be found in those neighbouring countries of France, Germany, and Belgium between which it is wedged.

Luxemburg became possessed of an "Association Royale Agricole" in 1846, and of "Le Circle Agricole et Horticole" in 1853, and these institutions performed a useful function in holding exhibitions, circulating literature, and watching over the commercial interests of agriculture. But the time came when Luxemburg, seeing what other countries were doing, concluded, as they had done, that combinations with a more practical purpose had become indispensable. Accordingly, in 1883, the Luxemburg

House of Representatives passed a law authorizing the formation of agricultural syndicates, the immediate purpose of which was to be the carrying out of works for the improvement of the soil. These were followed, later on, by the formation of many other syndicates on the general model of those established in France. One of the primary objects sought by this newer type of organization was the collective purchase of agricultural necessaries, to which end the members of the syndicates held annual meetings, where they announced the quantities of chemical manures, seeds, etc., they would require during the year. The administration then grouped the orders, bargained with the manufacturers for the entire quantity, and had it sent to some convenient centre in waggon-load lots.

Then, also, the associations held periodical conferences at which addresses were given by experts in agricultural science, gatherings of this kind being found to have an important educational influence on the cultivators of the soil who form the bulk of the little community. In 1894 the first co-operative dairy in Luxemburg was formed. To-day there is a considerable number of these organizations in the Grand Duchy. They have been grouped into a general federation, the Council of which supervises not

only the dairies but the sale of the butter and cheese; and the peasants find their own labours have decreased in proportion as their profits have augmented. In 1899 the fruit growers formed a combination to organize the joint export of their produce. Other associations deal with the insurance of live-stock, these being supplemented by a federation for re-insurance.

The most important factor in the general situation was, however, brought about when the House of Representatives passed a further law authorizing the Government of the Grand Duchy, on the application of the Communal Councils, to establish Agricultural Credit Banks from which the local associations could obtain loans up to £40 each, at 5 per cent. interest, for periods not exceeding three years. In this way the peasants were often enabled to at once take advantage of agricultural improvements which otherwise would have been beyond their means.

The Government also appointed a commission of experts to watch over and extend the work carried on in the experimental and demonstration fields already set up by various associations, and to furnish reports on that work to the agricultural journals in the interests of the whole farming community. The commission was further charged with the task of popu-

larizing the newest and best types of agricultural machinery by giving demonstrations thereof in the country districts, thus bringing them under the direct notice of the peasantry; and it was instructed to prepare agricultural maps of the Grand Duchy, so that the farmers in any particular locality would be in a better position to obtain the kind of fertilizers needed for the soil they were cultivating.

CHAPTER XVIII

THE UNITED STATES

WHEN visiting the United States in the winter of 1902–1903 to collect data for my book on *American Railways*, I had many opportunities of learning how, in various ways, and in different directions, the agricultural interests of the country had been advanced by a resort to improved methods of production, and especially by systems of combination which had enabled producers to make arrangements with railway companies that tended to the advantage of both. I have thought, however, that for the special purpose of the present work, it would be better, instead of attempting to deal with United States conditions as a whole, to give a study of a particular district, and it seemed to me that no one district among those I saw in the course of my journeyings on the American Continent would be more suitable for the purpose than that of the Illinois Central Railroad. Apart from numerous ramifications,

this railway runs in a direct line from Chicago to New Orleans, and, for a considerable part of that stretch of over 900 miles, serves many centres where the local interests are mainly agricultural.

With a view to obtaining definite facts and figures, I communicated with the president of the Illinois Central Railroad Company, Mr. Stuyvesant Fish, and at his request Mr. T. J. Hudson, the Company's traffic manager, has drawn up for me what I now venture to offer as a profoundly interesting statement, based on the results of his thirty years' experience in the service of the Illinois Central. This is what Mr. Hudson says:—

Before the advent of railroads each town or city was dependent for its fruits and vegetables on the surrounding country, and then the supply was only abundant during the particular season when such products were grown. As the facilities for rapid transportation came and progressed, the farmers enlarged their operations, until now cities and towns in all parts of the country are kept supplied the year round with fresh fruit and vegetables. The traffic is immense, and has grown to be of such commercial importance that in cities like New York, Chicago, and St. Louis entire streets are given over to the handling of the business. In many places whole farms are used entirely in the raising of truck (market-garden produce), so profitable have producers found it to be. They take advantage of the newest discoveries in connection with agriculture, as

developed by Agricultural Colleges and Experiment Stations, particularly in the South, and by these means are enabled to add materially to the productiveness of the soil. So the business has grown from gardens surrounding cities to territories covering many States, furnishing the railroads with a high-class traffic and a crop of quick sale for the farmer.

While at the present time the States south of the Ohio River and east of the Mississippi River supply a large proportion of the produce of this nature, it is only in comparatively recent years that this has been the case, for the reason that the development of that part of the country in the matter of transportation facilities has come since the close of the Civil War. In fact, at the time of the Civil War truck-farming was only in its infancy in Illinois. The building of the Illinois Central Railroad opened up a region in Southern Illinois particularly adapted to fruit and vegetable growing. In the early sixties settlers in the vicinity of Cobden planted orchards, having in mind the supplying of fruit to the Chicago market, where prices were high; and, while waiting for the orchards to mature, they took up the raising of vegetables and small fruits, such as tomatoes and berries. Meeting with success, they continued the business, which increased in volume each year until it has developed into its present proportions.

With the close of the war and the opening up of direct North and South lines of transportation, the business had gradually extended into the South until now, as stated above, that section of the country has become a great fruit and vegetable territory. As the demand in Northern cities for fresh fruits and vegetables the entire year round grew, truck-farming kept extending further South in order to get the earlier crops. The extreme Southern producers had of course to pay high transportation charges

on account of the distance, and there was great risk involved in sending the produce to Northern markets on account of the time involved in transit. To meet this, the railroads have furnished special service, and the producers have combined and formed associations in order to secure advantages in reduced rates, and, also, to effect improvements in the manner of handling both at the point of despatch and at the destination. As the result of all these conditions the far South and South-west can now compete with the more Northern localities in the regular seasons, and, besides, furnish the produce during winter months at prices within the reach of all.

While the principal movement of the traffic is from the South to the North, vast quantities of Northern-grown potatoes, cabbages, onions, celery, etc., are transported to the South every winter, so that the Illinois Central at one season of the year hauls train-loads of such produce North-bound, and then, a few months later, hauls the same kind of commodities South-bound.

The Southern States traversed by the Illinois Central and Yazoo and Mississippi Valley Railroads are probably the largest fruit and vegetable-producing States in the Union. Crystal Springs, Miss., on the Illinois Central, is, indeed, the largest tomato-shipping point in the world, and other of our stations are as notable in the raising of strawberries and vegetables, car-loads after car-loads of such commodities being forwarded during the different seasons.

As an indication of the improvements made by the railroads in the facilities for handling this perishable traffic, I may say that in the beginning shippers were obliged to use either common box cars or cattle cars, or send by express. As regards the last-mentioned course, not only was it almost impracticable, on account of the high charges, but the produce met with hasty handling,

and suffered from the poor ventilation in the baggage cars. The box cars also afforded poor ventilation, causing the vegetables to heat, while the stock cars were too open, and exposed the contents to the weather, besides which there was the constant pounding and jarring, owing to absence of springs on the cars. Now we provide modern ventilated cars and refrigerator cars, which ride as easily as passenger coaches. Trains composed of such cars are run through on passenger train time, enabling the fruit and vegetables to be placed on the market almost as fresh as at the time of gathering.

The manner of loading—which is, of course, an important consideration in the carrying on of this traffic—has been reduced to a science. The contents of a ventilated car are so arranged that when the car is in motion a current of air comes in at the front end ventilators, passes between the tiers of packages, and escapes through the rear ventilators. Where refrigerator cars are used they are iced several hours before being loaded, so that the temperature is of the proper degree when the shipments are placed therein. When necessary the cars are also re-iced *en route*. In this way fruits and vegetables of the most perishable kind can be carried thousands of miles and delivered in good condition.

Owing to the nature of the traffic, the special kind of cars required, and the need to run the trains on fast schedules, the rates charged were necessarily high, particularly for less-than-car-load lots; and in order to secure the benefit of lower, or car-load, rates, the shippers and consignees found it necessary to form organizations. These organizations have worked to the mutual advantage of all—the railroads as well as the shippers and consignees.

The building of the Illinois Central opened up, as already mentioned, a region in Southern Illinois which

was particularly well adapted to the raising of fruits and vegetables, the territory in the vicinity of Cobden taking the initiative in the matter. It was at this station that, about twenty-five years ago, the first Fruit Growers' Association was formed, establishing what is known as the Granger System of shipping. The associations formed under this system are organized under the laws of the State, and are capitalized at from $1,000 to $5,000. The stock is issued in shares of $10 each, and any person engaged in the growing or shipping of fruits and vegetables who has subscribed for a share is considered a member. The officers of the association generally consist of a president, vice-president, secretary, and treasurer and six directors, elected by the shareholders at the annual meeting. The business of the association is controlled by the board of directors and officers, who appoint a local manager, and also, at destination, a receiver or general consignee. The local manager looks after details at the shipping point, such as ordering cars, checking the packages from the farmers' waggons into car, giving receipts for them, and making up a detailed manifest of the shipments loaded into car, which manifest accompanies the car to destination, and gives the name of the shipper and commission merchant to whom consigned.

The shippers are given the privilege of consigning their shipments to whatever commission firm they choose, and the packages are so marked. The way-bill shows the car-load to be consigned to the general consignee, who meets it at destination, pays the railroad company the freight charges, which are assessed on car-load basis, and makes delivery to representatives of the different commission houses, who will be on hand with waggons. He then adds to the freight charge his charges for handling, prorates the amount, and fixes a package rate in proportion to the size and contents. The commission merchant

renders a bill of sale, deducting the various items of expense, such as commission of 10 per cent., freight charges on package basis, cartage, etc., and remits direct to the shipper by cheque or express order. The general consignee, in collecting from the commission men the amount due in respect to the railroad charges already paid by him, and, also, for his own services, makes a small additional charge on behalf of the association, to enable it to meet cost of management, etc. Supposing, for instance, that the railroad freight comes to $40 per car, and that the charge for his own services is $4 per car, making a total of $44, he collects an amount which will aggregate $50 per car, remitting $6 to the central organization.

The advantages of this system are (1) that the farmer is relieved of much trouble in shipping his consignments; is able to gain the full advantage of car-load rates; is sure of his goods being properly looked after on arrival at destination; is certain of honest returns; and is led by all these considerations to increase his crop from year to year; (2) the railroad company gets more freight to handle; it is saved the expense of loading and unloading; and it effects an economy in dealing with one or two persons instead of many in regard to the collection of freight charges and other matters of detail.

From this association at Cobden have sprung a number of others; and as an indication of the magnitude of the car-load business done by them I may mention that the average number of cars per annum dealt with by five of these organizations works out as follows: Cobden, 700; Anna, 500; MaKanda, 350; Villa Ridge, 300; Balcom, 100. The extent of the business done is still more clearly shown by the following table, which gives the quantities of fruit and vegetables forwarded from Southern Illinois (Villa Ridge to Carbondale inclusive) during the

last eight years, and the freight receipts of the Illinois Central Railroad Company in respect thereto:—

YEAR.	QUANTITIES.	RECEIPTS.
	lbs.	Dollars.
1896	40,588,200	76,355.67
1897	58,239,800	104,959.74
1898	36,095,500	64,885.52
1899	32,389,100	57,297.23
1900	31,865,300	54,948.49
1901	43,322,600	77,023.43
1902	40,483,200	63,361.89
1903*	32,315,900	51,186.42
Total .	315,299,600	550,018.39

* Nine months.

The schedules of fruit and vegetable trains from Southern Illinois points to Chicago show that the speed, including stops, is twenty miles per hour, and, not including stops, twenty-one miles per hour. In 1902, however, the train scheduled from Centralia ran at a speed of twenty-five miles per hour.

From points in the Southern States the returns in respect to freight tonnage and receipts give the following totals for the "seasons" of the undermentioned years—the "season" covering in each instance the months from March to July, inclusive:—

YEAR.	QUANTITIES.	RECEIPTS.
	lbs.	Dollars.
1896	39,371,192	227,304.84
1897	35,622,900	222,342.03
1898	52,989,179	273,532.35
1899	29,622,642	159,603.66
1900	37,886,397	188,600.49
1901	38,450,506	186,095.71
1902	40,829,398	210,488.72
1903	41,909,964	236,139.71
Total .	316,682,178	704,107.51

At several places situated on the Southern lines a

speciality is made of some particular product, as, for instance, strawberries at Independence, La.; radishes at Roseland, La.; tomatoes at Crystal Springs, Miss.; and cucumbers at Canton, Miss. In many of the districts served by these Southern lines there are associations operating on the same principle as those in Illinois already mentioned.

As a further indication of the extent of this traffic from the South to the North I give, also, the number of extra cars, loaded with fruit and vegetables, from stations on the Southern lines, and from points in Illinois, handled for the American Express Company, and necessitating the running of special trains almost daily during the season, these cars being in addition to the tonnage hauled on the freight trains as shown above:—

YEAR.	NO. OF CARS.
1897	187
1898	291
1899	325
1900	380
1901	454
1902	465
1903	565

The significance of all these figures will be better understood when it is remembered that there has been a vast change in the products of the South during the past twenty or twenty-five years. Prior to that time cotton was the staple product, and no attempt was made to cultivate other crops to any extent. But the last two decades have seen a great resort not only to the production of fruit and vegetables, but to the growing of crops of all kinds, including grain and hay, so that cultivators are now no longer dependent mainly on a single article. More attention is, also, being given to stock grazing, and dairying has been taken up in New Orleans, the adapt-

ability of Southern soil to a diversity of crops and purposes being now taken full advantage of; while the general prosperity of what were once purely agricultural districts has been very greatly increased by a further rapid development of industrial enterprises.

I may add, by way of conclusion, that the figures I have given do not fully represent the sum total of the fruit carried, for, irrespective of all this, the Illinois Central also handles a very large traffic in bananas and other tropical fruits, imported by way of New Orleans. This makes it necessary for us to have a large equipment of cars especially designed for handling fruit. As going to show the extent of this business, I beg to call your attention to the fact that on June 30th, 1903, the Illinois Central R.R. Co. had in service:—

	NUMBER.	CAPACITY IN TONS.
Fruit Cars . . .	1,516	... 42,172
Refrigerator Cars . .	2,037	... 58,319

That is to say, the equipment available for this purpose, if used for no other, could carry over 100,000 tons at each loading of the cars.

This most instructive story—for which I have to express my cordial acknowledgments to Mr. Stuyvesant Fish and Mr. Hudson—brings out, I think, with great force and clearness the fact that the agriculturists in the United States, as in the countries of Europe with which I have already dealt, have not been slow in benefiting from the latest developments of agricultural science; that to this cause is due, in part, the great expansion in agriculture brought about

there; that the best of results for traders and railways have followed the adoption by the former of combination principles which enabled the one to work hand in hand with the other, to their mutual advantage; and that cultivators in Illinois and the Southern States, at least, have displayed great readiness generally in adapting their methods alike to fresh openings and to changing conditions.

CHAPTER XIX

ARGENTINA

IN an interesting sketch of the position of agriculture in Argentina, published in the *Journal of the Board of Agriculture* for June, 1903, Mr. Herbert Gibson, vice-President of the Argentina Rural Society, showed that several special circumstances had combined to give to Argentina the position she now occupies as a food producer—especially for British markets.

The crisis of 1890 drove the *estanciero* "back to the land"; and the outbreak of foot and mouth disease in Argentina, which closed our ports to his live-stock, was a blessing in disguise to him, since it led to the inception of the chilled meat trade, and the substantial development of the dairy business, the latter being, also, greatly facilitated by reason of the drought in Australia, which gave Argentina a better chance with her exports. Another most important element in the spread of agriculture in

the country has been the expansion of the Argentine railways, the whole of which, with a few exceptions, are owned by English companies. "Throughout the agricultural zone," says Mr. Gibson, "new branches are being made, carrying the colonist and the tools of his craft to virgin lands, and putting him in touch with his buying market. Every lineal mile of new railway calls 15,000 acres of land into cultivation."

But the point with which we are here mainly concerned is the evidence afforded as to the effective part that organization has played in the results to which Argentina has attained, and concerning this I venture to quote the following passages from Mr. Gibson's contribution:—

Fifteen years ago the traveller in Argentina would arrive at an *estancia*, where the mobs of cattle numbered thousands, to find that he had to drink tea without milk, and mark as a token of honour to the guest a tin of Danish salt butter on the table. The dairy supply of the great city of Buenos Aires was in the hands of Basques, who milked their cows in unclean yards, and rode off in the morning astride a jangling pannier of tin cans, the cream churning into butter as the horse trotted through the lanes of the suburbs. Thus they cantered into town to dispense their wares from door to door, and their sole competitor was the pedestrian cow-herd, who drove his kine through the busiest streets, and, in answer to the hail of the housewife, supplied milk "fresh from the cow."

The process of churning by equitation demanded the roughest of trots, and the cowboy of Argentina describes the rude gait associated with this interesting function as a *trote lechero*—a milkman's trot.

Men who are still young have seen a horse-hide vessel containing cream secured to a rough sled, and dragged at break-neck speed over the *pampa*. When the wild chase ended, and the hide vessel was opened, butter was revealed.

A few years ago a leading *estanciero* took up the trade of the dairy supply of Buenos Aires. He erected buildings on his estate, and equipped them with separators, refrigerators, and all the most modern appliances of dairy science; introduced milking herds of which the Dutch Holstein and the Shorthorn were the predominant breeds; opened numerous supply stores in the city, whose cool white-tiled rooms speedily became popular with the man in the street, and in a year the Basque, with his clattering cans and the street cow, had faded into the past.

This was the beginning of the dairy trade. The drop in wool, particularly in the strong cross-herds which constitute the bulk of the Argentine wool parcel, induced live-stock breeders to give more attention to their herds of cattle. The outbreak of foot and mouth disease and its effect on live-stock trade was a further incentive to the *estanciero* to study the profitableness of the dairy business. Central butter factories, receiving cream either by direct purchase or on the co-operative system, were established in many districts. In 1898 the production of butter barely exceeded the local consumption. In 1902 over 4,000 tons were exported, almost entirely to the United Kingdom. The importance of producing a uniform quality has made the farm dairy and churn give place to the central factory, and the result has been a corresponding

improvement in the market value. In 1900 Argentine butter was sold at a price inferior to that obtained for the French, Dutch, Danish, Swedish, and Australasian article; to-day Argentine butter obtains a price second only to that of Denmark and Sweden.

CHAPTER XX

CANADA

IN the twenty-eighth annual report, for the year ending December 31st, 1902, of the Ontario Agricultural College and Experimental Farm, the President, Mr. James Mills, writes:—

The condition and prospects of agriculturists in this country are improving. The farmers of Ontario, not to speak of the other provinces of the Dominion, are in a much better position now than they were fifteen or sixteen years ago. They are on a higher plane of intelligence; they dress better and live better; they are getting a larger share of the necessaries and comforts of life for their labour; and as a class they stand higher socially than they did in the years gone by. Many agencies have been contributing to these gratifying results—the public and High Schools all over the province, the Agricultural College, the Dairy Schools, Travelling Dairies, Farmers' Institutes, Women's Institutes, Live-Stock, Dairy, and Poultry Associations, Entomological Society, and Fruit Growers' Association, Winter Fairs, other great fairs, provincial sales of live-stock, and the annual distribution by the Minister of Agriculture to all members of Farmers' Institutes throughout the province of free copies of all reports and bulletins issued by the Department of Agriculture, the Agricultural

College, the Farmers' Institutes, and the various associations under the control of the Minister—many agencies and a great work.

Of these various agencies the one that has, perhaps, exercised the most direct and the most powerful influence in recent years, in giving a new impetus to the development of agriculture in the Dominion, is the Farmers' Institute, with its equally successful off-shoot, the Women's Institute.

In Canada, as in most of the European countries already dealt with, there came a time when the ordinary type of agricultural society was found no longer equal to the practical requirements of the day. But this conclusion was arrived at not without good experience of the institution in question. There had been agricultural societies in Canada since 1798, and the old records relate how, in those early days of Colonial history, the farmers would meet together at a monthly dinner, and indulge in much conviviality —and also in much snuff-taking—as an accompaniment to their exchange of views on the best way in which the interests of agriculture could be advanced.

In 1830 an Act was passed in Ontario which provided that when an agricultural society was organized in any district for the purpose of im-

porting valuable live-stock, grain, grass-seed, useful implements, or whatever else might conduce to the improvement of agriculture, the Government might grant £200 to assist, provided the society raised £50. Under the operation of this Act the formation of district societies spread so far that in 1846 there was organized a Provincial Board of Agriculture, whose function it would be to hold provincial exhibitions, the first of these being at Toronto in that same year. Then the local agricultural societies, which began to get more numerous, took to holding exhibitions on their own account, and the growth of the general movement led to the passing of the Agricultural and Arts Act, which was to the following effect:—

The objects of District and Township Societies shall be to encourage improvement in agriculture, horticulture, manufactures, and the useful arts:

(*a*) By importing and otherwise procuring seeds, plants, and animals of new and valuable kinds;

(*b*) By offering prizes for essays on questions of scientific inquiry relating to agriculture, horticulture, manufactures, and the useful arts;

(*c*) By awarding premiums for excellence in the raising or introduction of stock, for the invention or improvement of agricultural or horticultural implements and machinery, for the production of grain and of all kinds of vegetables, plants, flowers, and fruits, and generally for

excellence in any agricultural or horticultural production or operation, article of manufacture, or work of art;

(*d*) By carrying on experiments in the growing of crops, the feeding of stock, or any other branch of agriculture, or by testing any system of farming through arrangement with one or more of the farmers of the municipality in which the society is organized.

But in actual practice the said societies rarely went beyond the powers conferred upon them by section "(*c*)" in regard to the holding of exhibitions, and these, in the words of the Minister of Agriculture for Ontario, soon degenerated into "spectacular amusements," after the fashion of country fairs, the real interests of agriculture being put into the background. Another authority on the subject wrote not long since:—

I go to nine or ten exhibitions in this part of the country, and it is seldom we find a judge who really knows the difference between a Shropshire, a Hampshire-down, and a Southdown.

Agriculture could not be expected to derive much real stimulus from societies conducted on such lines as these, and it was a happy inspiration that led to the starting in Canada of the type of Farmers' Institute which was already doing good work in the United States. This new organization, however, was to supplement rather than supplant the agricultural societies, and it has certainly worked along lines of activity

that are all its own. To-day it is being steadily spread throughout Canada, much activity being shown in this direction by the Dominion Department of Agriculture, which during 1902 furnished speakers for systematic work undertaken with a view to promoting the establishment of Farmers' Institutes in Quebec, Nova Scotia, Prince Edward Island, New Brunswick, the North-west Territories, and British Columbia. But, for the purpose of illustrating the general system, it may suffice if I deal with the growth of the movement in the provinces of Ontario and New Brunswick.

The "Rules and Regulations" approved in 1895 by the Lieutenant-Governor in Council for the guidance and direction of Farmers' Institutes in Ontario set out (among other things) that—

The Ontario Legislature has voted an appropriation of $2,200 for Farmers' Institutes for a grant of $25 to one Institute in each district, on condition that an equal sum be granted by the County Council or the municipalities in which the Institute is organized, and on such further conditions as may be imposed by regulations of the Minister of Agriculture.

The object of each local institute shall be the dissemination of agricultural knowledge in its district and the development of local talent. The officers shall endeavour to bring the rank and file of the farmers into touch with the most successful local men, that the masses may

become more conversant with the best and most profitable methods of farming, stock raising, dairying, fruit culture, and all branches of business connected with the industry of agriculture.

Each Institute is required to hold at least five meetings every year in different places in the district in which it operates, and at these meetings, except in the case of the annual meeting, papers are to be read or addresses delivered on questions relating to agriculture, horticulture, dairying, or kindred subjects. It is stipulated that "free discussion shall be encouraged," and to this end the practice is to make the papers short and suggestive rather than complete, so as to encourage a general exchange of views. It is further laid down that "all institutes organized under the Act shall be strictly non-partisan and non-sectarian in every phase of their work, and no institute shall be operated in the direct interest of any party, sect, or society, but for the equal good of all citizens and the farming community."

All money received, whether as members' fees, legislative grant, grant from the County Councils or from municipalities, or otherwise, is to be spent within the district in which the institute operates (1) to defray actual expenses

of meetings; (2) to employ suitable persons to address meetings; (3) to assist in circulating agricultural, horticultural, live-stock, and dairy literature or periodicals among the members, or to establish a circulating agricultural library for the use of members; or (4) to remunerate the secretary and others for services rendered.

Founded on these general lines, Farmers' Institutes have made such progress in the province that they comprised, on June 30th, 1903, a total membership of 23,754. The number of meetings held during the previous twelve months had been 837, and the number of papers read or addresses delivered was 3,377. The meetings are often attended by official delegates whose expenses are paid by the Provincial Government, but every effort is made to stimulate local interest and local energies.

As regards the results obtained, the Superintendent of Farmers' Institutes for the Province of Ontario says in his report for 1902–1903:—

> Through the Institute it is our object to help the farmers towards a knowledge of better methods of farm management. By free discussion at these meetings the farmer gets new ideas in regard to his work, which enables him to solve problems that have worried him on his farm. He is also advised of new varieties of plants and animals, and is thus enabled to improve his live-stock and the feed which is necessary for their development.

The variety of subjects dealt with is indicated by the following examples of the topics discussed:—Agriculture: "The Clover Family"; "Clover the Key to Successful Farming"; "Barnyard Manure"; "Soil Cultivation"; "Feeds and Feeding"; "Fodder Crops"; "Selection and Care of Seeds." Horticulture: "Spraying an Apple Orchard"; "How we Exterminated the Black-knot in our Township"; "Planting and Care of an Orchard"; "Growing Apples"; "Handling and Marketing of Fruit"; "Small Fruits"; "The Farmer's Fruit Garden." Live-stock: "Breeding, Selecting, and Feeding Cattle for Export"; "The Beef Animal from the Butcher's and Feeder's Standpoint"; "Horse-raising, and the Requirements of the Market"; "Present Prospects of the Hay Trade"; "How to Improve our Live-stock." Dairying: "Co-operation in Dairying"; "Prevention of Milk Fever in Cows"; "A Practical Talk on Dairy Cows." Poultry: "Raising and Fattening Poultry for Export"; "A Desirable Poultry House"; "The Egg—Through the Incubator to the Home or Foreign Market."

Exhibits likely to be of general interest are also shown at the meetings, and on this point the Superintendent further says, in his report:—

Besides the regular subjects discussed at the meetings

we made a speciality last year of "good seeds." Samples of good and bad seeds, in small bottles, were furnished the delegates, together with large charts showing the percentage of weed seeds found in commercial samples as ordinarily sold by our merchants. It was appalling to find that in many instances seed was being offered for sale in Ontario containing millions of weed seeds of twenty or more varieties. Our delegates were instructed to point out the differences in good and bad seed, and to impress upon the farmers of Ontario the necessity for using only good seed, if they would keep their farms clean.

The institutes fulfil, also, a social purpose, the reading of papers on severely practical topics being relieved by others on matters of more general interest, by papers written by ladies, and by music and recitations for the special purpose of attracting the attendance of wives and daughters. In fact, an American writer, Prof. A. J. Cook, says in an article on "The Ideal Farmers' Institute: How to hold it in your Neighbourhood":—"To secure the maximum good the institute should be largely attended by earnest, enterprising farmers, with their wives and families. . . . The man who attends an institute without his wife gains only a partial benefit."

But the Canadian ladies were not willing to play simply a subordinate part in the movement. When, in 1897, the Farmers' Institute had become an established success, the wives and

daughters set up "Women's Institutes" as a subsidiary organization, instead of contenting themselves with imparting additional attractions to the gatherings of the men; and these further institutes have been no less successful than the others.

They started in quite a small way, but in the year ending June 30th, 1903, they had a total paid-up membership in the province of 4,583. The meetings are held in the houses of the members—so as to save the expense of hiring halls—or sometimes the use of a schoolroom, or even of a church, will be granted; and the nature of the proceedings may be gathered from the following statement of the "objects" in view:—

> To promote the knowledge of household science which shall lead to improvement in household architecture, with special attention to home sanitation, to a better understanding of the hygienic and economic value of foods and fuels, and to a more scientific care of children, with a view to raising the general standard of health of our people. Mutual improvement by an interchange of views by essays, lectures, or other means found practicable, upon all subjects pertaining to the welfare of our homes and families.

The utility of these essays and lectures must stand unquestioned, judging from the examples contained in an illustrated *Handbook on Women's Institutes*, issued by the Ontario De-

partment of Agriculture—an admirable publication of which anyone disposed to introduce an additional interest into the daily life of farmers' wives and daughters in England may be strongly advised to beg a copy from that Department.

From two of the papers contained in this volume I should like to give a few lines, as illustrating the particular purpose the movement is intended to serve. Writing on "Women's Institutes," Miss Blanche Maddock (Guelph) says:—

If a woman is to rule wisely and well in her own home, it is absolutely necessary that she come in contact with others, that she should keep in touch with the great outside world. . . . Since the formation of Farmers' Institutes farming has received a new impetus. Men are now becoming proud of their profession, and the old cry of "drudgery" is not so often heard. However, this cry is still heard in the farm home. Statistics prove that more women in the country go insane than in any other class in the community. This is not so much from overwork, but because of the monotony of woman's work on the farm. The same work is done day in and day out, with no other thought than getting one thing done to get to the next. The well-known line, "The daily round, the common task, will furnish all we need to ask," may be true enough if we could realize the wonderful forces in nature with which we are coming in contact in the daily round of work. . . .

At the meetings of the Women's Institutes all subjects for the uplifting of the home and the bettering of house-

keeping methods are discussed. When the organization of these institutes was first discussed it was feared by a great many that the movement would not be favoured by the women throughout the country. So far as my experience goes, I find that the women throughout the Province of Ontario are taking up the work very enthusiastically. They feel that the time has come for new and improved methods of housekeeping, and are looking forward to the meetings of the institutes as a means of accomplishing this end.

Then in a paper on "Objects and Benefits of Women's Institutes," Mrs. J. Gardner (Kemble), says:—

Our farmers' wives, aside from their attendance at church, get out none too often, but coming in contact with other lives brings new trains of thought, and relieves that tension sure to follow the pursuit of only one kind of work, and that made up of little things. . . .

To make a success of farming there must be co-operation between the farmer and his wife. I know of no other occupation where the wife must so necessarily be a co-partner in the business with her husband. . . . I once heard a man say he now owned dollars where he would not have owned cents if it had not been for a good wife. . . . How is it that the women of Denmark and Germany have gained the reputation of being the best housekeepers in the world? . . . Why may we not, as women of Canada, at the beginning of this bright and new century, increase in power and prosperity in the same ratio as they have done?

There are so many interests about the farm closely connected with the work of the thrifty housewife that they are almost a part of her work as well. It is not necessary

for women to work in the field, but there is a distinct woman's work in the country and on the farm. . . . One thing we may be if we choose, and that is good farmers' wives. . . . The young girls who, during the beginning of the new century, shall come to preside over the agricultural homesteads of Ontario will be far better fitted to assume the responsibilities than were a majority of their mothers when they came to preside over the new home that marriage gave them. This is especially due to the different educational institutions that have been started in this country. . . .

Let the farmers and their wives unite in general demand for mutual advantage, and not, as it has been, a one-sided development. With that end in view let us place before ourselves a high ideal and strive to attain it. Develop a fondness for our calling, for what we love to do, and we will do well.

These extracts may, perhaps, convey a sufficiently clear insight into the spirit with which the formation of "Women's Institutes" has been taken up in the Dominion as a sequel to the "Farmers' Institutes," and the combination of the two represents a phase of agricultural progress which, with the other agencies spoken of at the outset, is bringing about the noticeable improvement in the condition and prospects of the Canadian farmer. And this improvement would be advanced still further if the ordinary agricultural societies of Canada could be induced to become less recreative and more practical, by

joining heartily in that task of promoting the higher education of farmers which constitutes the key-note of the conspicuous success to which the Institute system has attained. Speaking on these topics at the annual meeting of the Canadian Association of Fairs and Exhibitions, held in the city of Toronto in February, 1902, the Hon. John Dryden, Minister for Agriculture, said:—

The gentlemen looking into my face to-day perhaps do not realize as I do the hunger and thirst that exist for information all over the country—it is not for amusement, but for information. If these agricultural societies will undertake to give this information, they will be ten times as popular as they are to-day, or ever have been.

This is the work that has been undertaken in these latter days by the Farmers' Institute system. The Farmers' Institute and the agricultural society should be dovetailed together. What does an agricultural society undertake to do by bringing together these animals and presenting the best products? Some people seem to think the object is that they may give prizes to this man and to the other; but the giving of these prizes is only a means that is used towards another end. The end and object of it all, as contemplated by the framers of the Act, was to present the proper ideals to the people, so that they might know exactly what was the best thing, and what they ought to produce in the best interests of the country. That was the idea contemplated by the framers of the law. But the agricultural society stops there; that is all it can do. I can fancy a young man who is without information, but

has become interested in agriculture, looking on and saying: "I should like to know how to produce them, but your society does not give the information. I should like to know what they mean by putting that animal first. The other one looks better to me—but I can get no information." The only way this young man could get the information he seeks would be to attend the meeting of the Farmers' Institute, where these matters are discussed. The Farmers' Institute, therefore, supplements the agricultural society, and the one ought to be dovetailed into the other—that is, if you are endeavouring to reach the object I have set up in my own mind as being the aim and desire of every agricultural society.

If, Mr. Dryden continued, they found that in a certain section of the country improvement was needed along a particular line, the exhibition should try to improve the general production in such district in the department in question, offering prizes in these classes only, and announcing lectures thereon in a building adjoining the exhibition, so that the lecturers could have before them, when they gave their information, the animals which had been judged. In this way the work of agricultural society and institute would be combined, and the farmer would be helped to get out of the beaten track. Mr. Dryden proceeded:—

I think that our agricultural societies ought to have definite purposes before them, and accomplish in that way definite results for the best interests of our country. We

should thus unify our methods and raise the standard of production. The object to be attained will, of course, vary in different districts. In one district it may be that the fruit interest is paramount. Then let your attention be turned in that direction. Or it may be that the people want instruction in dairying. A deputation of dairymen waited upon me this morning. They said there had never been a time in the history of the country when the people needed information on dairy subjects more than they do just now. They are drifting away and becoming careless in their methods. . . . It is improvement in your methods that will lead to better production all over the country.

These remarks were made by a Canadian for Canadians, but I commend them to the consideration of agriculturists at home, with this query: Are they not, in the main, just as applicable to Great Britain as they are to the Dominion of Canada? And would not Farmers' Institutes and Women's Institutes on the Canadian model, with an improvement of the ordinary agricultural societies to follow, be likely to serve as useful a purpose on this side of the Atlantic as on the other?

To show what is going on in the smaller provinces as well, I should like to add a few words concerning New Brunswick, which is the largest of the three Maritime Provinces of the Dominion, but has an area no greater than that of Scotland without the islands.

New Brunswick's leading industry is agriculture, and of the ordinary type of colonial agricultural societies—which hold shows and fairs, and introduce good stock—there are in the province about sixty, with a membership of 5,000. They receive grants from the Government to the extent of £1,500 a year, and they are said to have done excellent work. But that work was found inadequate in itself, and a recent Act of the Provincial Legislature authorized the formation of Farmers' Institutes for the purpose of disseminating information with regard to agriculture.

The position to-day is well indicated by the report of the New Brunswick Commissioner of Agriculture for 1902, from which I take the following:—

> The demand for more and better knowledge along agricultural lines is a predominant feature with New Brunswick agriculturists, for they are beginning to realize the fact that no business or calling in life offers better opportunities for intelligent and well-directed efforts than agriculture; but to simply plough and mow, reap and sow, is no longer considered intelligent farming. Therefore the farmers of this province have awakened to the necessity of being informed along all lines of this work, for never in the history of the province has there been such a demand for printed information as the demand of the past year. . . .
>
> Lectures are delivered in every section of the province through our Institute speakers, who are men skilled in all

branches of farm work, and the good seed sown by them has already begun to bear fruit. Thousands of farmers with their wives and daughters attend these meetings, which are veritable farmers' schools, in which information along all branches of agricultural work is given by these practical and scientific men, procured from various parts of the Dominion. This necessarily costs a large sum of money, which is cheerfully expended, in order that the agricultural work may be promoted, for with this great industry in a healthy condition all other industries will soon feel the benefit.

It is pleasing to know that the efforts of this department are being recognised by the farmers of this country, interests having been aroused that have lain dormant for years, much to the detriment of those who are engaged in all agricultural pursuits, as well as those who are depending upon the agriculturist to make his work a success.

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CHAPTER XXI

AUSTRALASIA

THE position which the Australasian colonies have succeeded in obtaining in the markets of the world, and especially in the markets of the Mother Country, has been secured only as the result of a great amount of energy, enterprise, and skilful organization.

Australasia had her "agricultural crisis" in the seventies and eighties, just as Europe in general had, but under wholly different conditions. With vast expanses of virgin soils, she was capable of a productiveness far beyond the powers of consumption of her very limited population, and when the time came that the supplies were greater than the local demand, the agriculturists began to drift into a very depressed condition indeed. Too often the fall in prices was such that the settlers could hardly get any return at all for their labour. Sheep were boiled down for tallow; butter had sometimes to be kept for any period from six to twelve months

before a market could be found for it, and then it would fetch threepence a pound; and cheese and other perishables realized so little that it was hardly worth while to go to the trouble of preparing them. Breeders of pigs even had a massacre of superfluous stock every second or third year in order to keep up the prices of those animals or of those products which alone it was worth while to put on the market.

It was seen that the best remedy for these conditions would be found in the furnishing of food supplies to Great Britain; but an essential preliminary to the adoption of this remedy was the discovery of an effective system of refrigeration, so that perishable commodities could be carried the very considerable distance to be traversed and arrive in sound condition. To-day all this is regarded as a matter of course, and refrigeration seems a simple enough business. But there has been an element of romance in the story, all the same. It was in 1861 that the late Thomas Sutcliffe Mort resolved in his own mind that the man who could solve the problem of refrigeration on board ocean-going vessels, for the safe transport of large quantities of perishable produce, would bring wealth to the Colonies and confer a great boon on the teeming population of the Mother Country. Not only did he

undertake the task, but from that time he devoted his energies and his means almost entirely to its accomplishment. Fourteen years later—that is to say, in 1875—he called together a number of the leading colonists of New South Wales to inspect some "chilling works" he had set up for preparing meat for export to Great Britain, and so confident of success was he that in his opening speech on the occasion he declared that "the half-starved nations of the earth shall now be fed." Some thousands of pounds were also spent on fitting up the ship *Northam* with refrigerating apparatus, and the vessel was duly laden with a cargo of meat for consignment to England. But the machinery broke down before the vessel left the wharf, and the experiment was a failure. Mr. Mort died soon afterwards, without having seen the successful accomplishment of efforts on which he is said to have expended a quarter of a million sterling.

But there were other workers in the same field, notably Dr. James Harrison, of Geelong, who gave the best years of his life to developing the system of artificial refrigeration. In 1880 there was a first successful shipment of frozen meat from Australia to England by the steamer *Strathleven*, and a new era was started for Australasian agriculture, though another period

of eight years was to elapse before refrigeration was taken advantage of for the transport of any other perishable commodity than fresh meat. Then there began to grow up a further big trade in dairy produce, and this, in turn, has been succeeded by the export of fruit, poultry, rabbits, etc., in respect to all of which the principle of refrigeration has practically annihilated distance.

The greatest of the disadvantages under which the Australasian farmers had laboured was thus successfully overcome, and they were able to join actively in the now world-wide competition for the privilege of supplying the British public with food. But there were other things still to consider. Under his previous conditions, as already described, the cultivator had found that the most primitive methods of cultivation sufficed; but when he had to adapt his produce to the requirements of the British market, and when he entered into competition with European cultivators who neglected no scientific principle which would improve their position, the situation became altogether different. The various Colonial Governments thereupon set about the organization of more or less effective systems of agricultural education, the colleges, schools, information bureaux, and model farms established with this special object in view being

supplemented by itinerant professors and instructors, who went about among the farmers, or otherwise assured to them skilled advice in the various branches of their undertakings. These, again, were supplemented in some of the Colonies by substantial bonuses, and by a system of official inspection of produce intended for export.

But in Australasia, as in most of the European countries of which I have already spoken, it was found that the opening up of more markets, and the teaching of better methods of production, required to be supplemented by giving to the cultivators greater facilities for raising capital, by means of loans, for the carrying on of their agricultural operations. Here, again, there are differences in the conditions in Europe and Australasia respectively, for though the Australian squatter may be in a better financial position generally than the average peasant in Continental Europe, he is liable to visitations of drought, unknown in the Old World, which in a single season may deprive him of years of effort, and leave him to begin his work all over again. Added, therefore, to the general considerations which apply to the Colonial equally with the European farmer, there were special reasons why an easy agricultural credit should be brought within the reach of

the former; and as this subject is a matter of practical interest to agriculturists all the world over, it may be of advantage if I indicate briefly what has been done in some of the leading Colonies.

In New South Wales an Act was passed in 1899 adopting the principle of advances to settlers who were in necessitous circumstances, or were financially embarrassed owing to drought. A Board was appointed to consider applications for loans, and determine whether they should be granted. Under the original Act no advance made to any one settler was to exceed £200, at 4 per cent. interest, and the sum borrowed was to be repaid in ten years; but under a later Act, passed in 1902, the maximum was increased to £500, and the period for repayment was extended to 31 years.

In Victoria the Savings Banks Commissioners were authorized by an Act of 1890 to make advances to settlers on mortgages of their lands. In 1896 a new Act modified some of the conditions previously laid down, and enabled the Commissioners to lend to farmers, graziers, market gardeners, or other persons engaged in agricultural, horticultural, viticultural, or pastoral pursuits. The loans, granted on the security of the land held by the borrowers, could be ad-

vanced in instalments, if desired. They were to bear 4½ per cent. interest, and be repaid in sixty-three half-yearly instalments, or such smaller number as might be arranged.

In Queensland an Agricultural Bank Act, passed in 1901, authorized the establishment of a bank for the purpose of promoting the occupation, cultivation, and improvement of the agricultural lands of the State. The capital to be raised was not to exceed £250,000, and advances up to £800 might be made to farmers or settlers. Interest at the rate of 5 per cent. per annum was to be paid for the first five years, at the end of which period the borrower was to repay the loan within twenty years in half-yearly instalments at the rate of £4 0*s.* 3*d.* for each £100 advanced.

In South Australia a State Advance Bank was set up in 1895 for the purpose of making advances to farmers, producers, and local authorities, in aid of industries, at a rate of interest not to exceed 5 per cent., the funds being raised by mortgage bonds guaranteed by the Colonial Government.

In Western Australia the Agricultural Bank Act of 1894 authorized the establishment of a bank which would make advances to farmers and cultivators for the purpose of enabling them

to carry out improvements in respect to "clearing, cultivating, and ring-barking." By an amending Act of 1896, the definition of such improvements was extended to fencing, drainage works, and the provision of wells, fresh water reservoirs, buildings, or other works enhancing the value of the holding. The capital of the bank is £200,000; the maximum loan is £800, and the maximum rate of interest is 5 per cent.

Finally, in New Zealand the Government Advances to Settlers Act of 1894 provided for the establishment of an Advance to Settlers Office, which was empowered to lend on first mortgages on land occupied for farming, dairying, or market gardening purposes.

One sees, therefore, how these various conditions may well have contributed to the advance of Australasian agriculture: the bringing of the markets of the Old World within reach of the Antipodes by the successful resort to refrigeration; the higher education of cultivators who had been led by Bountiful Nature into the adoption of easy-going and non-scientific methods of production; and the active aid of the State both in directing the various branches of agricultural industry along practical lines and in placing financial resources within the reach of the cultivators in case of need. As for

the results, there is no need to bring forward any elaborate array of statistics to show how greatly the productiveness of Australasia has increased under the operation of the various circumstances described above. On this point I will content myself with a single fact, namely, that within thirteen years of the practical application of the principle of refrigeration, the exports of agricultural products despatched by these means from the colony of Victoria alone amounted in value to £15,500,000.

The expansion of colonial agriculture suggested by such figures as these means much more, too, than simply the direct return from the produce that is exported. It means that land suitable for grazing or other agricultural purposes in convenient localities has greatly increased in value of late years; and it means, also, that many subsidiary industries have been created to supply requirements for the various branches of agricultural export. Saw mills and factories have been set up for making butter and fruit boxes or rabbit crates; and hundreds of persons find employment all the year round in providing wraps for the carcases of frozen mutton. One sees here a further illustration of a fact which I have already repeatedly advanced—that the development of agriculture may be a substantial

advantage not alone to the toilers in the rural districts but also to the workers in the towns.

Provided that the deplorable consequences of periodical droughts in Australia can be avoided by an efficient system of irrigation, there would seem to be hardly any limit to the productiveness of our Australasian colonies, and though agriculture there is only just passing out of what is called the "tentative" stage, it is evident that the foundations have been laid of an organized system from which much can be looked for in the immediate future. There are drawbacks, however, apart from the possibilities of drought. A writer in the *Year Book of Australasia* for 1903 says, in regard to the question of fruit export:—

> The great difficulty consists in the absence of concerted action on the part of the fruit growers generally, and especially in New South Wales. Attempts have been unsuccessfully made to introduce the co-operative principle, which has effected so much in connection with the dairy farming industry; and until something of the kind becomes possible the progress of Australian fruit cultivation must remain slow and uncertain.

Even in the dairy-farming industry itself there is an increasing tendency on the part of the farmers to avoid the daily journey to the central factory with their milk by using hand separators at home, and taking in their cream

at intervals of from two to eight days, to the consequent detriment of the butter produced.

Worse still is the position to which the farmers have been reduced by the industrial conditions in Colonies which are becoming a dubious Paradise for Workers but an undeniable Purgatory for Employers. The "Rights of Labour" movement has, it seems, affected country districts as well as industrial centres, for the farmers say they cannot afford to pay the rates of wages imposed by the "labour boards," and they and their families cannot stand the strain of doing all the work themselves. "So it is," writes one authority on the subject, "that we are drifting more and more into the position of limiting our summer production to the herds we can manage without hired help."

The path of the Australasian farmer is, therefore, far from being strewn entirely with roses. But it is a much easier path for him to walk along than it would have been had not Science and Organization each stretched out to him a friendly hand in the way I have here sought to describe.

CHAPTER XXII

IRELAND

IT was in 1889 that Mr. (now Sir Horace) Plunkett started on his attempt to reorganize the agricultural conditions of Ireland. Returning there after a prolonged residence in the United States, where he had been ranching in the interests of his health, he was struck by the distressed condition of the country, and resolved to do what he could for its improvement. He began, however, on lines which he soon found it necessary to abandon. At the Co-operative Congress in England, in 1889, he got the idea that the regeneration of Ireland might be facilitated by the establishment of co-operative stores. The speedy discovery of the fact that such a hope would be entirely delusive led him to think of other possible remedies, and he then evolved in his own mind the idea of a co-operative dairy, not learning until some time afterwards that co-operative dairies were already a well-established institution in Denmark.

To get the Irish people to adopt his proposals was, however, tremendously uphill work. The need for action was evident enough, for the position the Irish farmers had secured for their produce on English markets was being threatened by other countries which were adopting scientific processes that gave them an immense advantage over the "miserably out-of-date methods" (as Mr. Plunkett himself called them) of the Irish farmers, who had, further, been deprived by steam, electricity, and refrigeration of whatever advantages they once commanded with regard to nearness to markets. "Your very existence," he told them, "is threatened by circumstances of which you have little knowledge, and over which you have, at present, no control." But he addressed fifty meetings before he got the first co-operative dairy started, and it was not until another twelve months had passed that he saw the second. Then success gradually became more assured, so that in 1891 the creameries and co-operative societies numbered 17; in 1892 there were 25; in 1893, 30; and in 1894, 33. The movement had then so far progressed that it could no longer be controlled by individuals, and the Irish Agricultural Organization Society was formed, the number of

creameries and societies increasing, the following year, to 67.

All this time Mr. Plunkett had been looking forward to the day when it might be possible to supplement self-help by State aid. But experience had convinced him that organization among the farmers themselves must precede Government action, if such action were to be really efficacious, and not until he had achieved a certain degree of success in the former respect did he move in regard to the latter. Then, in 1896, he was instrumental in bringing about the Parliamentary Recess Committee, composed of representatives of the various Irish parties. This Committee made elaborate inquiries abroad, and deliberated as to what could be done to develop the agricultural and industrial resources of Ireland, eventually presenting a report in which, among other things, they recommended:—

(1) That the administration of State aid to agriculture and industries in Ireland on the principles to be described can be most effectively carried out by including the two branches of Agriculture and Industries, and the technical instruction relating thereto, under the care of one Department of Government specially created for the purpose; and

(2) That this Department should consist of a Board with a Minister of Agriculture and Industries responsible to Parliament at its head, and assisted by a Consultative Council representative of the agricultural and industrial interests of the country.

A "Department of Agriculture and Technical Instruction for Ireland" was duly created on what (but for legal phraseology) were identically the same lines as those proposed by the report of the Recess Committee. The Department works in cordial sympathy with the Organization Society, and such sympathy is well justified by the fact that if the Organization Society had not already been in existence, and laid so well the foundations of the new movement, it would have taken the Department at least another five years to attain to the position it occupies to-day.

The work of setting up co-operative creameries in Ireland has been greatly facilitated of late years by the fact that they can be established without imposing any serious financial burden on those concerned. The initial cost may be from £1,300 to £1,500 for a creamery fitted with the requisite machinery of a modern type; but, as a rule, it will not be necessary to make a call on the members for more than 10*s.* each (in some cases only 5*s.* each is paid), the remainder of the cost being met out of the subsequent profits.

The trade done by the Irish creameries now represents a total of £1,000,000 the year. The number of Dairy Societies and Auxiliaries in

Ireland in 1902 was 322, with a membership of 41,299. Of Agricultural Societies there were 124 in 1902, and of Poultry Societies 31. The latter represent an especially promising phase of the movement. At one time the eggs were collected from the farmers by "higglers," who bought them at a certain price irrespective of size or colour. They might be kept some time until the higgler called, and he, in turn, might keep them until he had made up a good consignment, so that by the time the eggs reached the English consumer many of them would be bad. In this way Irish eggs got an unfavourable reputation. To-day instruction is given to the farmers as to breeds, etc., the eggs are paid for according to weight and colour—the farmer thus having every inducement to provide for the collector as many large brown eggs as possible—and the eggs, when bought, are graded and sent off promptly to market. Instruction is also given in the art of packing according to Danish methods. There are, in addition, Flax Societies, Horticultural and Fruit Growers' Societies, and an Irish Bee-Keepers' Federation.

The importance of the rôle that is being played by the agricultural credit banks in Ireland in facilitating all this economic development could hardly be exaggerated. To the Irish peasant it

may be a matter of supreme importance that he should be able to raise a small loan in case of need. The temporary use even of a few pounds, for the purchase, say, of a pig, may make all the difference as to whether or not he will be able to pay his rent. Not only, however, have the ordinary Joint Stock banks in Ireland a natural reluctance to make very small advances to individual borrowers, but to these persons themselves the expenses incurred in obtaining such advances may substantially reduce their actual value. A farmer living in county Mayo once related his experiences in getting a loan of £5 from a Joint Stock bank. "I had," he said, "first of all to pay the return railway fare of myself and my two sureties to the town where the offices of the Joint Stock bank are. That was 1*s.* 3*d.* each. I had also to pay my sureties for the loss of their day's work, and give them dinner. The bank deducted 2*s.* 6*d.* from the £5 for the loan of the money for three months, and I had to pay the cost of the bill. Then, as I knew I should want to renew the loan at the end of the three months, I had to keep on good terms with my sureties for all that time, and 'treat' them when I met them." A calculation showed that the amount paid by the farmer in respect to the loan in question

was equal to 48 per cent. per annum on the sum borrowed.

The agricultural credit banks are changing all this. Based on the principle of unlimited liability, they are formed by combinations of peasantry, farmers, and better class sympathizers, and are managed on the most economical method, all the officials giving their services gratuitously. With the personal guarantees of the members for the return of the sums borrowed, no difficulty is (as a rule) found by the rural banks in getting substantial sums at 4 per cent. from the Joint Stock banks, which, generally speaking, regard the rural banks as desirable "feeders," and well deserving of encouragement. From the agricultural credit bank the farmer gets a loan at the rate of one penny per £ per month for such time as he may require it. The interest is not deducted in advance, and he incurs practically no travelling or other expenses either at the time he obtains the loan, or when he seeks its renewal. In actual practice the loans granted range from £2 to £10, the average being £3 or £4. Hitherto the banks have (so far as can be ascertained) made only one bad debt. In the course of a single year a bank established in one of the congested districts on the west coast granted 400 loans to small farmers, and in eleven cases

only were the borrowers as much as a single week late in their repayments. Even this fact displeased the local committee, who imposed a penalty of threepence on each of the eleven borrowers for being in arrear.

All this may seem to be very paltry to a financier accustomed to dealing with large sums of money; but to the impoverished peasantry of Ireland it represents a substantial boon in regard to the material help afforded, while there are, also, good moral results secured in the teaching of a sense of responsibility, and in the inculcating of business principles. From the latter standpoint even the threepenny fines have a value which cannot be gainsaid. Altogether one can readily sympathize with the declaration of one Irish farmer who described the local agricultural credit bank as "the Good Samaritan of the district." It is hoped, however, that people in Ireland who have money to invest may be induced to pay it into the rural banks on interest, in order that such banks may have a larger capital available, and, also, to promote a community of feeling between the different classes. On the one hand it is sought to persuade the comparatively poor to deposit their modest savings in the rural banks, instead of hiding them in the rafters, or storing them

in an old stocking or a tea-pot; and, on the other hand, it is desired that the comparatively rich should devote their surplus money to the development of the district in which they live, instead of sending it away for investment in speculations in other countries. Above all, a very substantial addition to the number of these banks, which are doing so much good with such modest resources, may be hoped for. Already there are 150 in the congested districts alone. But to achieve really great results there should be close on 1,000.

Another outcome of the co-operative movement in Ireland is represented by the Irish Agricultural Wholesale Society, Ltd., which was formed in 1897 to supplement the efforts of the existing agricultural societies by obtaining for them and their members all descriptions of agricultural requirements of best quality at the lowest market prices. The Agricultural Wholesale Society represents, in effect, a federation of the other societies, the idea which led to its formation being that the experts whose services such a federation could secure would be better able to judge of the qualities of fertilizers, seeds, etc., than individual farmers could do, and that the federation would be able to get lower terms for large grouped orders than individual farmers

or individual societies could hope to secure for smaller lots.

In regard to fertilizers it was found that the average Irish farmer had the most elementary ideas on the subject, for he generally called all artificial manures by the one name of "guano," and he judged of their quality by their smell, which he concluded must be strong, if not nasty, if they were good. To-day, on the contrary, Irish farmers will talk about artificial manures in a way that would do credit to a professor of agriculture. Whereas, also, they once paid at the rate of £4 or £5 per ton to some local trader for manure of very inferior quality, they obtain to-day the highest grades through their Agricultural Wholesale Society for about £3 per ton, the total purchases of that Society now representing about 12,000 tons of artificial manure the year.

But if the position of the Irish farmer was once bad enough in respect to artificial manures, it was still worse as regards seeds. Before the formation of the Agricultural Wholesale Society the west coast of Ireland, from Sligo to Tralee, was the dumping-ground for all the "refuse" and "cleanings" of seeds from England and Scotland, as well as from the Continent in general, just as the Welsh coast, from Holy-

head to Carmarthen, is to a great extent at the present day. The Irish farmers in the district in question were, in fact, robbed as mercilessly in the matter of seeds as they were in the matter of manures. The refuse brought up weeds, if it brought up anything, and the cleanings produced a soft grass which contained no proper nourishment for the cattle. It is no wonder the farmers used to say "it was useless for them to sow seed at all." But now that purity and germinating qualities are guaranteed, larger yields and much heavier crops being consequently obtained, the purchases by farmers in the West of Ireland have increased enormously, and are still increasing.

Less advance has been made, up to the present, in the matter of agricultural implements. Whether or not there is an actual "ring" of makers, it is certain that the latter hesitate to deal direct with the Wholesale Society, and insist that purchases shall be made through "recognised agents"; but the way may eventually be found of overcoming a difficulty which at present presses somewhat hardly on farming interests.

Such is the magnitude of the operations carried on by the Irish Agricultural Wholesale Society, Ltd., that the annual turn-over now

amounts to from £80,000 to £90,000, as compared with one of only £15,000 in the first year of the Society's existence. Singularly enough, too, this substantial business is done on a capital that does not exceed £8,000. The course of procedure adopted is as follows. The farmers in a certain district notify to their local agricultural society the purchases they want to make, and the combined order is sent to the Wholesale Society in Dublin. But with it there is a printed form by which the members of the committee, individually and collectively, guarantee payment in case of default on the part of the actual purchasers; and, as the committee generally includes some wealthy farmer or other person of means, the guarantee is regarded as sufficient to warrant the directors, in their turn, pledging their own credit to the bankers. So well does the system work that the Wholesale Society has not yet made a single bad debt, while 90 per cent. of the local societies pay their accounts within the stipulated period.

A further supplementary organization is the Irish Co-operative Agency Society, Ltd., which seeks to provide the Dairy Societies with a profitable market for their produce. The society has its headquarters in Limerick, with depôts in Manchester, Liverpool, Dublin, Glasgow,

and elsewhere, and an agent in South Africa. In 1902 it sold 35,000 cwt. of butter, realizing £178,800, as compared with 30,800 cwt., realizing £166,700, in 1901.

Combination among the Irish farmers has further shown its value in securing the most favourable of railway rates. In the course of conversation a leading official of the Department of Agriculture and Technical Instruction for Ireland said to me on this subject:—

> We began with the idea that the railway rates were extravagantly high. We had heard people say so, and we thought it must be true. But the more we looked into the matter the more we saw that, considering the character of the freight, the quantities carried, and the irregular times at which consignments were handed in, the rates charged by the railways were really most reasonable, so far as the individual lines were concerned. We saw, also, that what was needed was such a combination among the producers and traders that their various consignments would be despatched in bulk and at regular times, so as to encourage and enable the railway companies to give more favourable terms. Our experience shows that when this is done the railway companies are perfectly ready to meet us, and do all that it is in their power to do.

Another authority, who possesses an intimate knowledge of the working of the co-operative movement in Ireland, said to me on the same subject:—

> We have been too much in the habit of blaming the

railway companies without recognizing their difficulties. There are stations where the business is so irregular that some days there will be a lot of officials with absolutely nothing to do; but they must be kept on because another day there will be perhaps more than they can get through. What the co-operative movement is going to do in Ireland, among other things, is to organize the traffic for the railways, so that they will know what to expect, and be enabled in various ways to effect economies from which we shall hope to gain advantages for ourselves.

As illustrating the possibilities in respect to reduced railway rates already open to combination, reference may be made to the rates charged for the carriage of artificial manures on the Midland and Great Western of Ireland Railway between Dublin and Langford, a distance of seventy-eight miles. For a single ton the rate is 10*s.* 1*d.*; for 4 tons it is 7*s.* 10*d.* per ton; for 6 tons it is 6*s.* 5*d.* per ton; and for 50 tons 5*s.* 10*d.* per ton, with the further concession of spreading that quantity of consignments over a period of eight days. An individual farmer in Ireland could not be expected to order a 50-ton lot, so as to secure the lowest of these rates; but the Irish Agricultural Wholesale Society, with which he can be connected through his local society, will give out contracts for as many as 2,000 tons at a time.

The position in 1902 of the various bodies associated with the Irish Agricultural Organization Society is shown by the following table:—

DESCRIPTION OF SOCIETIES.	1902.			INCREASE OVER 1901.		
	No.	Members.	Turnover.	No.	Members.	Turnover.
			£			£
Dairy . .	247	41,299	1,039,615	45	8,235	198,476
Auxiliaries . .	75					
Agricultural .	124	12,962	75,521	12	1,267	3,356
Banks . .	145	6,611	16,480	44	2,353	6,123
Poultry . .	31	5,906	29,914	5	1,137	13,245
Home Industries	50	2,983	11,998	12	344	3,048
Flax . .	4	118	2,889	—	15	2,224
Bee-keepers . .	17	298	91	17	298	91
Federations . .	3	257	232,528	1	125	18,261
Miscellaneous .	10	862	6,066	6	311	5,333
Totals . .	706	71,296	1,415,102	142	14,085	247,157

The total number of Societies on December 31st, 1903, was 853, subdivided as follows:—Dairy Societies, including auxiliaries not separately registered, 367; Agricultural Societies, 145; Banks, 201; Home Industries, 55; Poultry Societies, 36; Bee-keepers' Societies, 28; Miscellaneous Societies, 14; Flax Societies, 4; Federations, 3. The approximate membership of the whole of the Societies on the same date was 80,000, and the approximate total turnover was £2,000,000.

Apart from the practical considerations already dealt with, the new agricultural movement is appealing strongly to certain phases of Irish life and character in a way that is also well

deserving of notice. Forty or fifty years ago the social life of the Irish peasantry was of a most interesting kind. Its distinguishing features was the *celidh*—a gathering of the villagers in the house of one or other of their number, where, after the day's work was done, they would tell stories, relate folk lore, sing Irish songs, recite poems, or listen to the village fiddler, perhaps also dancing an Irish jig to his accompaniment. Occasionally the indoor gatherings would be varied by dances at the cross-roads. So it was that the life even in out-of-the-way villages in Ireland exercised a great charm on the people, and such conditions must have had much to do with the devotion with which Irish men and Irish women all the world over regard their native land. But with the growth of political and agrarian troubles this poetic side, as it were, of Irish character began to die out; life in the villages became dull and monotonous, and the younger people especially found the longing for a more active and a more pleasurable existence irresistible. In England in such circumstances as these the country people would migrate to some large town or city; but in Ireland the magnet that draws the peasantry from the villages in which they were born is America.

The fact is now recognised by the leaders of the new economic movement in Ireland that one of the most effectual means of checking this constant emigration to the United States will be found in improving the conditions of rural life in Ireland, by cultivating afresh not alone material advantages, but also those social instincts which form so characteristic a phase of the Irishman's natural temperament. Thus it comes that rural co-operative societies are fulfilling much more than a purely commercial purpose. Some of them have provided halls and recreation rooms; others utilize the offices connected with the creameries for dances and other gatherings; and about fifty of them have opened libraries in the interests of their members.

All these things increase the attachment felt towards the societies, and the combination of what may be called the human with the business element is having the best of results, alike for the people themselves and for the enterprises in which they have embarked. In other countries such combination might not be either necessary or desirable; but to the Irish peasantry it appeals with special force. Experience gained in organizing the new movement has shown that in the poorest districts particularly it is of little use to appeal only to the personal interests of

the individual. The peasant who is told that if he joins an agricultural co-operative society he will get so much more for his eggs, his butter, or his other produce, is deaf to the argument. But if the appeal be made to his feelings of brotherly love and of patriotism—if he is told, for instance, that by joining the society he will help to improve the position alike of those around him and of his country in general—he responds instantly, and is eager to do what he can. In the wealthier districts business considerations have the greater weight; but one of the oddities of the situation in the Irish rural districts is that, the poorer the man, the safer it is to appeal to his heart rather than to his pocket. In the one case he will regularly walk long distances to attend the meetings that are called; in the other he would hardly, as it were, cross the street.

The healthy public spirit thus being aroused may be illustrated by a gathering held in one of the most impoverished districts in the west of Ireland to consider the formation of a co-operative credit bank. An organizer from Dublin explained to the assembled peasantry that the proposed bank would be established on the basis of unlimited liability, so that if a borrower or his sureties failed to refund the amount borrowed

the other members would be jointly and individually liable to pay the money out of their own pockets. The organizer was fully prepared to hear his audience decline to accept any such responsibility, and he was agreeably surprised when a man among the audience called out, "Sure, that is nothing. Anyone would do that to help his neighbour." Where, in fact, the individual in Ireland is unprogressive, the community, operating in combination, becomes distinctly progressive, and a spirit is developed which is deservedly regarded as one of the most promising features of the whole economic campaign.

Of no less importance to Ireland, as a country, is the fact that the new movement leads to the gathering together, on one common platform, of persons of all classes, creeds, and shades of opinion. At first there were political differences. When, in the early days, a meeting was held at a town in county Limerick to discuss the setting up of a creamery, one speaker declared, "We will have nothing to do here with butter that is not made on Nationalist principles." In another instance a dairy society came to grief because the members disagreed in their views respecting the late Mr. Parnell. A few such experiences, however, led to the rule being firmly established

that no religious or political subjects should be brought up for discussion at any meeting held in connection with the co-operative movement. So it is that to-day parish priest and rector, landlord and tenant farmer, will all meet at the same table, and discuss in perfect harmony the various topics connected with the well-being and progress of the particular society in which they are mutually interested.

Such an achievement as this, in such a country as Ireland, would in itself be almost a sufficient reward for the toils of the organizers; but the matter does not end even here, for the discovery of the fact that such harmony is possible is having a reflex action in regard to public life in Ireland in general. It is seen that men of varied opinions can meet and work together for the common good without in the slightest degree sacrificing those opinions; and the broader views to which this tendency is leading can hardly fail, in course of time, to bring about some substantial changes in a country where sectarian and political considerations have hitherto been supreme.

CHAPTER XXIII

ENGLAND AND WALES

WHEN we inquire what England has been doing in regard to the organization of her agriculture, in order to meet all the activity in the same direction that has been shown elsewhere, the reply is far from satisfactory.

There is no need to disparage the useful purpose which, in its way, has been served by our various agricultural associations, whether national or county, especially in regard to the holding of shows and the spread of agricultural knowledge. But the series of sketches already given has shown that most of the countries on the Continent of Europe realized any number of years ago, up to a quarter of a century, that the ordinary type of agricultural society, whether controlled by the authorities or "free," was no longer sufficient in itself to meet the exigencies of a changing situation, and that improved methods of production, together with organizations of a much more practical type (especially

on co-operative lines), had become an absolute necessity if the countries concerned were to hold their own amid the rivalries of the nations.

What we are here concerned in, therefore, is to see the extent to which this second stage has been reached in England, and the conclusion forced upon one is that, so far as our own country is concerned, agricultural co-operation in any approach to a widespread and practical system is still absolutely in its infancy. Leaving out of account certain associations which are really commercial in their working, the Aspatria (Cumberland) Agricultural Co-operative Society, established in 1869, and still in active operation, was one of the earliest representatives in England (if not actually the first) of what may be called the "Continental" type; but though a few others may also have been formed, all these must be regarded as isolated efforts rather than as constituting any approach, in even the most modest way, to a national movement in favour of co-operative, as against purely joint stock, combinations.

It was the National Agricultural Union, with which the late Lord Winchilsea was associated, that constituted the first real effort to organize British agriculturists on a national basis; and it was the British Produce Supply Association,

founded by the same gentleman, that formed the most ambitious attempt yet made in England to create a direct bond of union between farmers and consumers. The National Agricultural Union had expressed the aspiration of eventually assisting in the organization of local co-operative societies for the purchase of necessaries, for the sale of produce, for credit, and for assurance; but in point of fact, little or nothing was done on these lines, and the members developed tendencies in favour, rather, of a policy of protection, while the Union adopted the practice of approaching Parliamentary candidates, and calling upon them to either accept a particular programme or look out for opposition. With political leanings such as these, the Union failed to convince the agriculturists that it was a practical body, and it gradually drifted into the position of a negligible quantity.

The British Produce Supply Association, formed in 1896, was a distinctly interesting effort, and one that aroused much sympathetic interest at the time. Lord Winchilsea's idea was that produce collected at certain depôts in the country districts should be sold in London in such a way that the public could depend on getting British-grown fruit, vegetables, etc., while the farmers would be enabled to get larger

profits through the abolition of the middleman. It was an ambitious scheme, and one which should have represented the climax rather than the commencement of agricultural organization, many of the most powerful agricultural bodies on the Continent having found, indeed, that while co-operation for purposes of production is eminently practicable, co-operative sale is a very different problem, and one full of difficulties. Lord Winchilsea, however, was sanguine of success, and he raised capital that eventually stood at £50,000. One-fifth of this sum was paid out on the initial expenses, which included the opening of commodious and well-arranged stores in Long Acre, where a retail business was to be carried on in addition to a wholesale business in the adjoining Covent Garden market.

At first the prospects appeared extremely hopeful. Lord Winchilsea's friends and sympathizers gave him loyal support, and began to patronize the Long Acre establishment in a way that filled some of the West-end traders with alarm. But these well-intentioned patrons were soon discouraged. Experience showed that British farmers could not be depended on to forward regular consignments to the depôt, and that those which they did send in represented, too often, either second or third-

rate qualities, their best having gone to the ordinary commission agents or dealers. West-end patrons found, therefore, that not only was it inconvenient to go to Long Acre for their supplies, but they could not depend sufficiently on them if they did.

Hence the patronage of the central depôt fell off, and there came a time when the losses on a business which, as the result proved, had been started both in the wrong place and on too large a scale, amounted to £250 a week. Nor was any greater degree of success gained from the wholesale department in Covent Garden market. In June, 1899, the central depôt was removed from Long Acre to Lower Seymour Street, Portman Square, so as to be nearer to West-end patrons; but fifteen months later the original association was wound up, and a new one, with a modest capital of £6,000, in £1 shares (17*s.* 6*d.* paid up), held by some half-dozen persons, took over the Lower Seymour Street concern. But the new association works on different lines from those of the old. It receives nothing but eggs direct from the farmers. The idea of operating with a combination of farmers in the country for general supplies was abandoned, not so much, perhaps, on account of difficulties such as those stated

above (for these might have been surmounted), but because a single establishment would not always be able to absorb the quantities coming to hand. It was thought better for all parties that the farmers should send their produce to Covent Garden market, and that the representatives of the Lower Seymour Street depôt should there purchase such quantities as the establishment thought it could dispose of, the surplus remaining in the wholesale market to be sold there to those who wanted it, instead of being left on the hands of the association.

Thus the final outcome of a costly experiment was to stamp as impracticable a scheme to which Lord Winchilsea, with a most earnest desire to improve the lot of the British farmer, had devoted a vast amount of energy. If he had first seen to the organization of the farmers into registered local co-operative societies, and then, when he had produced the desired results (such as levelling up the quality of produce, meeting market requirements, etc.), had set about forming a central depôt in London with which all these local societies could have been affiliated, a very different result would probably have followed. As it was, a well-meant project failed, a substantial sum of money was lost, and a very decided discouragement was given

to the idea of "agricultural combination" in general.

Meanwhile the position of the National Agricultural Union had not improved, and the time came when this organization, also, was to be reconstructed. On the death of Lord Winchilsea Lord Templetown succeeded to the presidency of the Union. He was followed by Mr. R. A. Yerburgh, M.P., who, in December, 1900, brought before the members a proposal that they should enter upon what he described as "an entirely new field of action—a field of action which the Union had never had in view before." His scheme was, in effect, that the Union should adopt the teaching and the methods of agricultural co-operation already so successfully followed in Continental countries, abandoning both politics and risky experiments, and proceeding upon strictly practical lines. The proposal thus made was approved, and the Union arranged to amalgamate with, and (but for the first word) adopt the title of the "British Agricultural Organization Society," which had been established at Newark, Nottinghamshire, by Mr. W. L. Charleton, as the outcome of a close personal inquiry he had made into the working of the Irish system of agricultural combination.

So, in April, 1901, there was at last started a really effective organization for the purpose of spreading throughout Great Britain some approach to the system of agricultural co-operation carried on so long and so successfully by other countries, which, availing themselves of their increased production, were by that time flooding our markets to a greater extent than ever with their surplus supplies. With modest funds that well deserve to be augmented, the Agricultural Organization Society, operating from its headquarters at Dacre House, Dacre Street, Westminster, has already accomplished a considerable amount of good work. The objects of the society (of which Mr. R. A. Yerburgh, M.P., is president, and Mr. T. A. Brassey chairman of the executive committee) are:—

To secure the co-operation of all connected with the land, whether as owners, occupiers, or labourers, and to promote the formation of Agricultural Co-operative Societies for the purchase of requisites, for the sale of produce, for Agricultural Credit Banking and Insurance, and for all other forms of co-operation for the benefit of agriculture.

The actual work of the society is carried out—

(1) By sending organizers to address meetings and to give advice as to the proper course to be pursued in the formation of local societies.

(2) By providing model rules which have been found by experience to be the best working rules for all similar societies.

(3) By sending lecturers, when desired, to affiliated and other societies.

(4) By acting as an information bureau to affiliated societies.

(5) By acting as arbitrator in disputes that may arise in the affiliated societies.

(6) By assisting in all ways possible the furtherance of combined action between the various affiliated societies in trading matters.

(7) By publishing leaflets and circulars from time to time, dealing with the various forms of agricultural co-operation.

There were affiliated with the central organization in London on December 31st, 1903, a total of seventy local agricultural societies of bona fide farmers, the whole of these local bodies, with the exception of twelve, having been formed since the Agricultural Organization Society came into existence in 1901. The membership at the end of 1903 was between 5,000 and 6,000. These figures represent a rate of progress far in excess of what was secured in the early days of the Irish movement, and they suggest that the British farmer is, at last, really awakening to the realities of his position, and is now fully prepared to take action, if only someone will show him the way.

The local agricultural societies are strictly co-operative bodies, registered under the Industrial and Provident Societies Act, thus affording

a contrast to the various farmers' clubs (which are only voluntary associations) and to the combinations of the aforesaid commercial type. The last-mentioned are registered under the Joint Stock Companies Act. They pay more or less generous fees in salaries to directors, managers, and officials, and they work over an unlimited area for the profit of shareholders; whereas the co-operative agricultural societies pay no fees or salaries (except, perhaps, a very small sum given to the secretary or manager), they keep to a clearly defined area in their operations (generally from seven to ten miles), and they seek to promote the general welfare of the members rather than to provide dividends. A classified list of fifty-four of the seventy affiliated with the central organization at Dacre House shows their particular purposes to be as follows:—

Agricultural supply	31
Societies combining supply of requirements and sale of produce	8
Cheesemaking	3
Dairy and bottled milk	3
Rural industries	1
Allotment and small holding	3
Societies combining supply of requirements and the improvement of live-stock	3
Poultry and egg	1
Improvement of cart horses	1
	54

The central association encourages the formation of a number of small local societies rather than that of one or two large societies in each county. It is found that a wide-spread interest in agricultural organization results from these small societies. When a sufficient number of them have been formed in a county, they will be combined into a county federation, at the head of which will, if practicable, stand the society occupying the most central situation; and when federations have been formed in a number of neighbouring counties they, in turn, will be associated in a still larger federation among themselves. In this way Great Britain will eventually be divided into several clearly defined sections, each having its committee and secretary, and each being represented by delegates on the central body in London.

Developed on lines which Continental experience has shown to be thoroughly sound and practical, there should thus eventually be brought into existence a non-political organization of farmers which must have far-reaching effects on the future of British agriculture. It should, however, be understood that the Agricultural Organization Society, like the Irish Agricultural Organization Society, is a purely propagandist body, and not itself a trading one,

leaving, as it will do, the local societies and their federations to arrange matters of business for their members. It is further deserving of mention that no questions of religion or politics are allowed to enter into the conduct of the movement, Rule 43 of the central organization expressly providing that—

> No religious or political question shall be introduced at any meeting of the Society, and no action of the Society shall be directed towards the propagation of any political or religious doctrines, or the advancement of the interests of any political party or religious body.

There is much of interest that could be told concerning the local agricultural associations as showing the really practical nature of the services they render. The Aspatria Society, for instance, has arranged sales representing a total of over £500,000 since it started operations—a fact which suggests that when the county federations come to be formed they should be in a position to effect considerable economies in the purchase of agricultural necessaries in wholesale quantities. On the other hand an excellent example of what can be done in a small way is afforded by the Muskham (Notts) Co-operative Agricultural Society. This village organization was started in 1899 with seven members and a secretary, and several

months elapsed before the membership was increased. The shares were 5*s.* each, 1*s.* 3*d.* being called up. Just prior to the harvest of 1899 the society resolved to purchase a "reaper and binder" at a cost of £32 (although their paid-up capital was then only £15), and the members obtained an advance from a local bank on their giving a guarantee to hold themselves collectively and individually responsible for repayment. A scale of charges for the use of the machine was drawn up, and the receipts have since then been sufficient to clear off the loan, so that the machine now belongs to the society, and the further income derived from it over and above wear and tear represents so much profit.

The Framlingham and District Agricultural Co-operative Society, brought into existence by the Agricultural Organization Society in May, 1903, has pioneered the movement in Suffolk, and was able to show a good record for the first six months of its operations. By the end of 1903 it had secured the adhesion of 114 members, who were holders of 1,600 shares, and it had done a considerable trade in linseed and cotton cake, coal, and agricultural implements. The members had also been supplied with manures, seeds, corrugated iron, wire-netting,

and binder twine, and other goods. The egg department had been most successful, over 56,000 eggs having been despatched to the orders of the National Poultry Society. The accounts showed a profit of 6½ per cent., after allowing for all initial expenses, on a turn-over of £1,136 for the half-year.

In the county of Worcester, especially, agricultural co-operation is now becoming a distinctly active force. The very great initial difficulty of inducing the farmers to set aside the traditions, habits, and prejudices of generations has been so far overcome that several excellent associations have been started and are in good working order, while even those Worcestershire agriculturists who still regard co-operative effort with a lingering mistrust are beginning to think there is "something in it," after all. At Bewdley a co-operative association started by representatives of the Agricultural Organization Society in May, 1902, has rented a large warehouse where fruit and vegetables are collected, graded, and re-packed, the questions of sorting and of suitable packages having been rightly regarded as of primary importance for the local producers if they are to succeed in the markets where the association further seeks to push their produce. Thanks to such combined effort, also,

a threatened serious fall in the prices for both fruit and vegetables, which individuals would have been powerless to prevent, has been checked. Then, beyond the ordinary functions of an agricultural co-operative association, the Bewdley society has provided its members with a well-arranged "swim-bath," with drying floor, pens, etc., where they can have their sheep "dipped," without trouble or risk, at 1*d.* per sheep—a moderate charge which, nevertheless, leaves a margin of profit for the association.

At Far Forest, four miles from Bewdley, there is a village agricultural society which obtains, at wholesale prices, and to the extent of about £1,500 a year, all kinds of necessaries for the local farmers, and helps them with the sale of their poultry, fruit, eggs, etc. The members of the committee represent six different religious denominations, but there has never yet been any friction. "Vicars Farm, Ltd.," organized in the summer of 1902 by the Rev. G. F. Eyre, vicar of Far Forest, as a separate co-operative society, was started with the idea of conducting a poultry farm; but its main business to-day is the control of a dairy which collects milk from its members, and distributes it in the form of bottles of sterilized milk, cream, and skim-milk to customers over a considerable area.

Not only did the vicar of Far Forest and his family take a large number of shares in the society, but the farmers were organized by him; he is the very active president of the concern, in the management of which he is helped by a committee of four; he keeps fowls himself both for sale and show; he grows raspberries on two and a quarter acres of land; and he is a member of the Far Forest Supply Association, helping the farmers to effect their purchases in the cheapest and best markets, and giving them, generally, the benefit of his knowledge and experience. A further development in the same district has been the formation, on co-operative lines, of the "Far Forest Pure Water Supply Association, Ltd." The fruit-growing and other industries in this corner of Worcestershire had been much hampered by an insufficient supply of water from the local wells, and cattle and horses had to be driven long distances to obtain good drinking water. The "Far Forest Pure Water Supply Association" was, therefore, on the initiation of Mr. Eyre, founded with the object of sinking an artesian well to meet the wants of the small holders of the district. A supply equal to 500 gallons per hour was tapped at a depth of 200 feet, but it was resolved to continue the sinking until

a supply of 1,000 gallons per hour had been obtained.

The most striking proof of all, however, of the progress that agricultural co-operation is making in Worcestershire is afforded by the recent formation—with Stourport as its headquarters—of the "Midland Counties Agricultural Supply Association, Ltd." This society is the outcome of opposition to the alleged "ring" of implement dealers in the Midlands, whose policy the Worcestershire Chamber of Agriculture, in conjunction with the Agricultural Organization Society, decided to try to checkmate. A sub-committee was appointed to go into the whole matter, and then the business of a local firm of implement-makers was bought up, and converted into a co-operative undertaking. The amount of business done by the association since it was formed is regarded as most satisfactory, and the "ring" is considered to have received a serious set-back in the Midland Counties.

There are many other interesting phases of the general movement in England, but I must now content myself with only two further examples. One of these is that of the Newark Dairy, Ltd., at Long Bennington, Lincolnshire, which represents the result of a very persistent effort made by Mr. W. L. Charleton (now one of the

vice-presidents of the Agricultural Organization Society) to group the farmers of the district into an association for providing the towns of Newark and Grantham with an "up-to-date" milk supply. The milk is bought from the farmers at a price which has averaged, since the society was formed, $7\frac{1}{2}d.$ per gallon; it is filtered, bottled, and pasteurized, and the bottles, hermetically sealed, are sent off to the customers, who find this method a great improvement on the ordinary practice in regard to milk supply. Between January 1st and December 31st, 1903, over 12,000 gallons of milk were distributed in this way, the farmers getting much better profits than if each had acted independently of the other. The association has now enlarged its premises by purchasing an adjoining public-house (the licence of which was about to lapse) and the four acres of land adjoining. One room of this former inn it will convert into a "cyclists' rest," while another will be utilized as a library and reading-room, representing a little centre for the general revival of village life in the neighbourhood.

My last example in this connection is that of the Scalford Dairy, Ltd., an association which was registered in April, 1903, for the starting at Scalford, near Melton Mowbray, Leicester, of

the first and only co-operative factory that yet exists in Great Britain for the making exclusively of Stilton cheese. It constitutes a genuine attempt on the part of Leicestershire farmers to combine their forces in competition with the proprietary cheese factories, with a view to their obtaining a better return from their raw materials, and they have entered into the scheme with great heartiness. The Duke of Rutland let them have a large building in the village, at the low rental of £16 a year, for the purposes of a dairy and store, and the farmers themselves did all the carting of the materials required for the various alterations. The cheeses that have been made have sold well, and the society promises to be a success.

Wales must, perhaps, be regarded as having shot ahead of England, for while the latter country has at present only local co-operative societies, affiliated to the central organization in London, the former has now a "Welsh Farmers' Federation" of agricultural co-operative societies. The main purpose of this federation is to bulk the orders for farmers' necessaries collected by the individual societies. Of these there were 20 at the end of 1903, the membership being about 3,000. With one exception, the whole of the Welsh societies are co-operative trading

organizations. The movement is taking strong hold among the Welsh farmers, who are beginning to realize the need there is for them to study the business aspects of their industry. A special feature of the campaign in Wales is that the opening of a store by each society, under the charge of a manager, is found essential to success; while as the societies get firmly established they develop other lines of usefulness, among them being the improvement of live-stock, the disposal of members' produce, the acquiring of weighbridges, etc.

Among the most successful of the Welsh societies is the one formed in the Vale of Tivy, West Cardiganshire. This society increased its turn-over from £700 in 1901 to £6,000 in 1902, when the balance-sheet showed that, after paying all expenses, and after having already enabled the members to share in the profits, there was a surplus of £300 over and above the capital originally invested. The membership of the society is about 600, mostly "small" people, whose individual purchases of maize, meal, bran, etc., nevertheless swell in a surprising degree the sum total of the business done. In 1902 the society grouped the Christmas poultry of its members, and disposed of it at a good figure, breaking up an old "goose fair ring," which had

previously kept the prices down to a level that was absurdly low. The same society has now undertaken the sale of pigs for its members, sending over 50 animals per week to the London market. The Emlyn Society has also been very successful in selling Christmas poultry in bulk, and has increased its turn-over from a few hundred pounds the year to £3,000.

Of the other societies, one at Lledrod, which started with only eight members, has now 70, almost every farm in the parish being represented in it; the Fishguard and Goodwick has given an order for nearly 400 tons of superphosphate for its members, this representing the largest grouped order, so far, of any single agricultural society in Wales; and the store of the Carmarthen society is doing a business equal to £100 a week, and has brought about a general reduction in the prices of agricultural necessaries in the district.

All this looks sufficiently promising; but, thanks to their new federation, the Welsh societies can now arrange their purchases to still better advantage. The first contract made by the federation was for the delivery of from 1,500 to 2,000 tons of basic slag, and the total amount of the business done by the federation in 1903 was £25,000. Wales has further distinguished

herself by the fact that Prof. D. D. Williams has delivered a course of lectures at University College, Aberystwyth, on "Agricultural Co-operation." Through the liberality of Mr. Augustus Brigstocke, two scholarships of £10 each have been awarded in connection with these lectures, which are to be an annual institution at the College.

Agricultural organization on essentially practical lines has thus at last made a fair start in England and Wales, and it has done so in a way that already offers abundant scope for a revision of the popular idea that it is hopeless to expect the British farmers to combine as those in other countries are doing. Still, the work thus far done has amounted mainly to preparing the foundations for a really national effort; and although these foundations have now been laid, after an infinitude of trouble, the construction of the edifice to be reared thereon will not proceed at the rate it should unless the builders receive a larger degree of support in the provision of funds for propaganda purposes than has been the case hitherto.

Another factor in the situation is the absolute need that agricultural credit should go hand-in-hand with agricultural organization. The necessity for this dual arrangement has been

proved over and over again on the Continent of Europe, and though the financial position of British agriculturists in general may be more favourable than that of the peasantry in various other countries where an easy agricultural credit was established years ago, the extreme desirability of such credit being available in Great Britain, also, is beyond any possible doubt.

Happily, here again a good commencement has been made by the Co-operative Banks Association, whose headquarters are at 29, Old Queen Street, Westminster, S.W. The purpose of this association is to establish both town and country co-operative banks, the former being registered under the Industrial and Provident Societies Acts, and issuing £1 shares, paid for in weekly instalments of 6*d.*; while the latter are registered under the Friendly Societies Act, and borrow money from the Central Banks Committee on the collective credit of the members (as the town banks do on the credit of their shares) for the purpose of making small advances for productive purposes. These country co-operative banks are, in fact, of that Raiffeisen type which has already conferred such inestimable benefits on so many countries abroad, and their adaptability to the requirements of the

small cultivator, the village tradesman, and the labourer in the rural districts of England has been abundantly proved by the eleven village banks which have already been established, four of them being in Leicestershire, two in Worcestershire, two in Norfolk, and one each in Hampshire, Nottinghamshire, and Leicestershire. Where these banks exist there is no need for individuals of the classes mentioned to resort to the professional money-lender, and loans of from £2 to £10 or £20 can be readily obtained by honest and deserving toilers for the purchase of live-stock, fertilizers, or implements, the repairing of glass-houses, and other purposes. The little timely help thus granted has, in many instances, been of practical service, while in every case the instalments have been punctually repaid. There is room for hundreds more of such village banks in England, and until they have been established no complete system of agricultural organization can be hoped for. While, however, village banks of this type are calculated to fully meet the requirements of the "small" agriculturists, they are not likely, on their present basis, to answer the purposes of farmers who conduct operations on a large or a fairly large scale, and it is foreseen that for them a different kind of agricultural credit will

have to be created. To this point I shall revert in the concluding chapter.

Still another body well deserving of public support is the National Poultry Organization Society, which from its headquarters at 12, Hanover Square, W., is striving to encourage and develop the production of the best qualities of poultry and eggs in the United Kingdom, and bring producers into more direct communication with retailers, "thus organizing the system of marketing which at the present time in respect of many parts of the country compares so unfavourably with the methods adopted by foreigners who have perfected their organizations and practically captured the British markets."

In regard to the action of public authorities in England a concession which ought to be of considerable advantage was made in 1902, when the Board of Education authorized the teaching of the "principles and practice of agricultural co-operation" under the Technical Instruction Act of 1889. This concession was made on the application of the Agricultural sub-Committee of the Buckinghamshire County Council, supported by the Agricultural Organization Society. It was followed by the appointment, through the society, of an agricultural organizer by the

Buckinghamshire Technical Instruction Committee for a period of three months, a co-operative agricultural society being formed, with the town of Buckingham as its centre. The committee have now arranged that if an application should be received from any particular district in the county for an organizer to visit the farmers and give them advice, the central society shall be asked to send such organizer there, his expenses being paid according to a specified scale. Then the Agricultural sub-Committee of the Lancashire County Council have resolved: "That 'the principles and practice of agricultural co-operation' be put on the list of subjects that may be taught by the Technical Instruction Committee, and, in the event of application from any locality, that the Agricultural Organization Society be at once communicated with; that in the meantime the Principal of Agriculture communicate with the secretary of the Agricultural Organization Society, and ascertain approximately the terms and conditions upon which a competent person experienced in agricultural co-operative work could be supplied." To this it may be added that the Cardiganshire, Carmarthenshire, and Staffordshire County Councils have obtained the sanction of the Board of Education to their

giving instruction in agricultural co-operation; while the Notts County Council included in their scheme of technical instruction for 1903–4, among some "Informal Talks and Discussions on Practical Subjects with Farmers," such topics as "Farmers' Clubs and Co-operation," and "Co-operation in Dairy Work."

Cordial recognition must be given, also, to the very earnest efforts which have been made by the Board of Agriculture to promote organization among the farmers of the country, and to advance the interests of agriculture in other ways besides. But while there is much that the Board of Agriculture can do, the powers of that body are necessarily limited, and it is undesirable in the extreme that the agriculturists of the country should rely too much on the help of the State in those particular matters where they can very well act for themselves, provided only they show the necessary initiative and energy.

CHAPTER XXIV

A GERMAN VIEW OF ENGLISH AGRICULTURE

IN the *Jahrbuch für Nationalökonomie und Statistik* (Jena: Gustav Fischer) there is a very clear and comprehensive survey, by Dr. Hermann Levy, of "The Present Position of English Agriculture," which deserves the attention of English as well as of German readers.

A belief in the ruin of British agriculture, as the ultimate outcome of the fall in the price of wheat, is, Dr. Levy says, widespread in Germany, and it has been especially fostered by the Parliamentary inquiries made into the subject in this country in the middle of the nineties, when the general conditions were avowedly bad. Yet Dr. Levy finds that our agriculture has not only survived, but has lately been showing signs of improvement. It is the causes of this improvement—not sufficiently accounted for by any advance in prices—which the author of the paper seeks to investigate.

In England as well as in other countries, he proceeds, the conditions to which the crisis of 1879 gave rise led to two different opinions being formed. The one was that for English agriculture there had set in the beginning of the end. The other held that the new conditions were simply a process of evolution, showing the need for a radical change in production. British farmers, it was argued, must apply their energies in directions where they would either escape the competition of foreigners, or encounter it in a less degree than in the growing of corn. Especially, it was argued, must they devote themselves to raising the finest varieties of cattle—either for the meat market or for stock-breeding purposes—and to the production of butter, cheese, fresh milk, fruit, and vegetables.

Taking up these various points *seriatim*, Dr. Levy adduces, in the first place, a number of facts and figures to show the important position to which Great Britain has attained of late years as a producer of live-stock for foreign countries. Not only, he points out, has the export thereof already attained to considerable proportions, but more and still more British agriculturists are turning their attention to what is found to be a profitable industry.

In regard to dairy products, Dr. Levy continues, the impression prevails in Germany that the large supplies of butter received from Denmark and Ireland have done serious harm to the English farmer, and such supplies certainly represent a serious competition. But neither in Denmark nor in Ireland does he find conditions which the English farmer might not have secured for the purpose of at least checking this competition, had he thought fit. Instead, however, of doing so, the English farmer found it more profitable to devote himself to the supply of fresh milk. Here the two leading factors were (1) the steadily increasing consumption of milk in the towns; and (2) the constant improvement in the conditions of transport. Farmers who could send their milk to a town got better prices and incurred less trouble than if they turned it into butter; so that (in effect) it paid them to let the foreigner supply the towns with butter if they could control the market there for fresh milk. All this is perfectly true, no doubt; but the German critic omits to point out that there are parts of England so situated that the farmers cannot send their milk to the large centres of population. In these cases, at least, the establishing of co-operative dairies for butter production should be a decided advantage.

In the matter of poultry and eggs, Dr. Levy finds that the English farmers have made a substantial advance of late years; and he deals, also, with the opportunity offered to them for supplying the wants of the English people in regard to fruit and vegetables, the consumption of which, as he demonstrates, has enormously increased throughout Great Britain. He shows that not only has far more land in England been devoted to fruit and vegetables, and especially to potatoes, but the yield per acre has improved owing to the introduction of better varieties and the resort to improved methods.

So the crisis brought about in 1879 led to important changes in production. But it led, also, as Dr. Levy next shows, to no less significant changes in regard to the producers. Dividing the agriculturists of England into two classes, "gentleman farmers" and "working farmers," he defines the gentleman farmer as the product of those days of agricultural prosperity when native-grown corn fetched a high price, and the demands on the grower's own energies were but few.

With the advent of the crisis came the decline of the gentleman farmer. He had no longer the same rôle to fill, in the economy of the new agriculture, which, with its breeding and feeding

of cattle, and its production of fruit and vegetables, required the close personal supervision of a "working" farmer. Even more than this was necessary. There were needed for these alternative branches of agriculture helpers of a higher type than the labourer who had gone through his almost mechanical round of duties in the production of corn. But persons of this type were more difficult to get, and even when they were secured, the milking of cows, especially, was regarded with dislike by both women and men. So the lack of competent hands, followed by the steady migration of the rural population to the towns, too often led to a shortage of labour which the working farmer and his household had to meet by themselves taking the leading part in the ordinary work of the fields. Here, again, therefore, the working farmer had the advantage over the gentleman farmer, so that while the latter lamented over the decadence of that British agriculture in which he could no longer play his part, the former found abundant scope for his personal energies in newer directions.

To the original contention that the agricultural crisis could be surmounted only by turning to these other sources of production, instead of corn-growing, two objections were advanced:

(1) That the consumption of meat, vegetables, and fruit in England was not likely to undergo any great expansion; and (2) that, if it did, the conditions of the English soil would not allow of these articles being produced in adequate quantities. Dr. Levy disposes of each of these fears. On the one point he adduces figures indicating the really enormous growth in the consumption of butter, cheese, eggs, poultry, apples, pears, plums, etc., in Great Britain of late years; on the other he tells how lands in various parts of the country which had previously been regarded as fit for corn-growing only have, by dint of individual energy and application, been adapted to the new conditions, and are producing excellent results. He is especially warm in his praise of the success achieved by Scotch settlers in some of the most unpromising districts of Essex and other Eastern counties. Such success, he remarks, shows "how personal capacity, combined with hard work, can surmount natural difficulties," and he adds that "the Scotch farmer possesses a power of adaptability which the English farmer either has not got or has had to acquire." Whatever the nationality of the farmer, however, provided he has fought bravely the difficulties presented by Nature, either by adopting new methods or

improving on the old ones, success has "not been far off."

But, granting that the British farmers are willing to turn their attention to particular forms of agricultural produce, other than corn, for which there is a large demand; and granting, also, that the soil can be adapted to the achievement of this purpose, how is it that the British cultivator has to encounter an increasing competition from the foreigner in regard to the produce in question? Why has not the British farmer been able to keep in his own hands the entire supply of those enhanced quantities of butter, eggs, poultry, fruit, and vegetables which his markets require?

This is the next point to which Dr. Levy addresses himself, and he declares with emphasis that the reply to the question is not to be found in any special advantages conferred by Nature on foreign countries as compared with Great Britain. He attributes the conditions in question mainly to two causes. The first of these is that "alike in the production of his supplies and in his method of disposing of them, the British farmer has a less perfect system than that of the countries which compete with him"; and this double superiority on the part of the foreigner is mainly due, Dr. Levy adds, to his application of the principle of co-operation.

But Dr. Levy is able to tell his German readers that "even in agricultural circles in England the fact is now becoming more and more recognized that the lack of co-operative organization has been the reason why the English cultivator has not been able to meet foreign competition in regard to articles of produce for which the soil of the island-kingdom is no more unfavourable than that of other countries." He goes on to explain the aims of the Agricultural Organization Society, and the successes it had achieved up to September, 1903; and in this connection he suggests that one of the main difficulties to be encountered in England in carrying out an effective organization scheme will be found in the varying sizes of the farms in particular districts, large, medium, and others comparatively minute being found side by side, and representing a variety of needs and interests which it may be difficult to bring together on a common footing. Another drawback to agricultural organization in England, as compared with Continental countries, he finds in the fact that here the farmers are mainly tenants instead of owners of the soil they cultivate, while they move about more freely from one district to another, thus often not acquiring the local ties and sympathies that are found in rural districts

in foreign countries, where the families may have known one another for generations. Even with these drawbacks, however, Dr. Levy finds in present conditions in England a distinct advance in the development of combination — "an advance," he declares, "which has certainly contributed to the fact that English agriculture is in a better condition to-day than it was in the middle of the nineties."

The second of Dr. Levy's reasons why the British cultivator has not been able to fully meet foreign competition in market-garden and other produce is defined by him as a non-agricultural one. "In England," he writes on this point, "the possession of landed property offers to the wealthy great social and political advantages. The political influence of the landowner, and the attractions and advantages of a country-seat, alike as a summer residence and as a centre for sport and society, awaken in almost every well-to-do Englishman the desire to own an estate." For these reasons, Dr. Levy argues, a great amount of land has been taken up in England for non-agricultural purposes, and is kept unproductive, not because tenants could not be found, and not because of any unsuitability of the soil, but either in the interests of sport, or because the conversion of the land into

small holdings might detract (in the opinion of the owner) from the beauty of the landscape. In this way non-agricultural interests often come in conflict with agricultural, while in other cases the paramount reason may be simply a lack of knowledge on the part of a landlord who leaves the entire management of his estate to an agent —a person generally disposed to favour large holdings in preference to small ones. Whatever the immediate cause, the effect is that much of the land which in Continental countries would be utilized for market-garden or kindred purposes fails to yield those substantial quantities of produce with which alone the British cultivator could hope to offer a supply equal to the demand.

I conclude this digest of Dr. Levy's paper with the following extract, in which he sums up his general argument:—

> We see now the causes which operated to make foreign competition felt by the English farmer even in what he ought to have regarded as profitable forms of production, so that he was not in a position to derive full advantage from the increased requirements of his home markets. The reason is not to be sought in the impossibility of securing the remunerative development of these particular branches of agricultural activity. It is admitted that such development was quite possible. Neither can it be said that the conditions of cultivation were worse in

England than elsewhere. The causes are, first, that other countries have better methods alike of production and sale, due to their comprehensive development of the principle of co-operation; and, secondly, non-agricultural interests have retarded the expansion of those further branches of production which might otherwise have been more fully exploited.

CHAPTER XXV

DO THE RAILWAYS HELP THE FARMERS?

IN his review of the present position of British agriculture, the German authority whose paper thereon I dealt with in the preceding chapter, makes no reference at all to that subject of railway rates which is so often advanced as one of the chief reasons for the adverse conditions from which British farmers have suffered of late years. That he can have been unaware of the complaints made on this point is scarcely probable, for when German experts undertake an investigation into any particular subject they are essentially "thorough"; and the only conclusion one can arrive at is that in the opinion of this impartial critic the backward condition of British agriculture is so far due to other causes that the question of railway rates does not constitute a sufficiently important matter to be introduced into his line of argument.

It is true that this bogey of railway rates in reference to agriculture is brought out from time to time in Great Britain itself, and there are individuals here who continue to cherish the delusion that the British farmer's natural enemies are the railways. But the statement of facts I have already presented as to what other countries are doing for the development of their agricultural interests shows that the greatest advantages they have gained have been secured from changes of method which are sufficient in themselves to account for their successful competition with the home producer, so that no practicable reduction merely in the cost of transport would suffice to enable the British farmer to meet Continental competition, without any resort to the Continental systems of production and combination.

All the same, it should serve a useful purpose to inquire whether or not the railways are sincere in their contention that the interests of British agriculture are also their own interests, and whether or not they have really made an earnest effort to help the British farmer by such practical means as lay in their power. Some definite facts on these points ought to go far towards dispelling the lingering delusions thereon, and help to clear the way for a wider re-

cognition of the actual requirements of the position.

In the month of October, 1895 (a year when much was being said as to the depressed condition of British agriculture), the Great Eastern Railway Company summoned a conference of farmers from the Eastern Counties to consider what could be done by the railway to further their interests, and Lord Claud Hamilton, the chairman of the Board of Directors, accompanied by Colonel Makins, the deputy chairman, and the leading officials, met a number of representatives of agriculture, headed by the late Lord Winchilsea. In an article on the subject which I contributed to *The Times* of November 2nd, 1895, I wrote:—

The primary object of the Great Eastern Railway Company in calling the conference was to impress on the agriculturists that while there should, in the interests of all parties concerned, be a certain co-operation between the railways and the producers, it is also essential that each side should, at the same time, have its distinct organization, complete in itself, and not intrenching on the legitimate domain of the other. Thus it was pointed out that the duty of a railway company, as carriers, is to organize a carrying service, and that it was for the producers in their turn to organize their consignments for delivery to the railway company, and the subsequent sale thereof, in such a way as to secure a *maximum* of profit at a *minimum* of expense. But it was

further pointed out, in effect, that this *minimum* of expense cannot be obtained when each producer acts independently of every other producer, and that it can, in fact, only be secured when a considerable body of producers work together in concert. . . . The fundamental principle laid down was that, if the railway companies are to help agriculture, then agriculture should, in its turn, facilitate the operations of the railway companies, and so make reductions of rates much more practicable than they would otherwise be.

Further conferences followed, and at one of these Lord Claud Hamilton announced that, as an earnest of his company's desire to do what they could to help the agriculturists, farm produce would, from December 1st, 1895, be conveyed on the Great Eastern Railway, by passenger train, from any one of 98 different stations on their system to London and stations in the Great Eastern suburban district at a reduced charge of 4*d.* for any weight up to 20 lbs., and 1*d.* for every additional 5 lbs. up to a maximum of 60 lbs., provided that such produce was packed in boxes which the company would provide at little more than cost price. The idea of these boxes was the twofold one of (1) facilitating loading, inasmuch as boxes of certain sizes, with lids nailed down, could be more readily handled and placed on top of one another than a miscellaneous assortment of hampers and

packages; and (2) that the trouble of returned empties would be got rid of, since the boxes would be so cheap that there would be no need to send them back.

Later on the company prepared and circulated a "List of Farmers, Market Gardeners, and Others prepared to forward farm and garden produce direct to their consumers," and much advantage has been taken of the opportunities thus offered; though the system is one that obviously confers a greater benefit on the farmer and the consumer than on the railway company, since, for the latter, it means the increase of that "small parcel" business which involves a *maximum* of trouble for a very modest amount of profit. The agricultural organizers of to-day are, indeed, themselves opposed to the system, on the ground that it tends to strengthen that element of "individualism" which it is their primary object to get rid of from among the British farmers, in favour of joint action akin to that of their foreign competitors. All this is reasonable enough, and it would be vastly preferable to a railway company to deal with British produce in bulk rather than in the form of an infinitude of separate small consignments. But at the time in question there was no effective combination on the part of the farmers

to produce the former result, and the only alternative seemed to the Great Eastern Railway directors to be to give such immediate help as could be rendered by the system which they introduced. A little more than a year later there were hopes that the desired organization among the farmers was on the point of being realized by the formation of Lord Winchilsea's British Produce Supply Association; but how that well-meant attempt failed has already been related.

Meanwhile the whole subject had attracted much interest throughout the country, and most of the leading railway companies either called conferences of agriculturists resident in the districts served by their lines, or else took such direct action as seemed to them most likely to secure the desired results. I was myself present at two of these further conferences—those arranged by the Great Western and the South Eastern Railway Companies—and I can bear testimony to the great earnestness with which the representatives of the railways not only advanced their own ideas, but welcomed any suggestion offered by the agriculturists which seemed to be at all practicable.

But the fact that other railway companies may not have called such conferences must not lead

one to assume that they remained inactive in the matter. On the London and North Western Railway, for example, no formal conference was held, but at every station in the rural districts through which that railway passes large posters were prominently displayed, in April, 1896, announcing that the company were prepared to arrange specially low rates, where not already in existence upon the company's system, "for meat, dead poultry, eggs, butter, cheese, vegetables, and other farm and dairy produce, in separate or mixed consignments." That these "specially low rates" deserved to be so described is shown by the following table, given on a handbill which was likewise issued:—

REDUCED RATES for the Conveyance of Agricultural, Farm, and Dairy Produce by Passenger Train.

BACON, CHEESE, CREAM, EGGS, FISH, FLOWERS, FRUIT, HONEY, GAME* (dead), HAMS, ICE, PLANTS, POULTRY* (dead), RABBITS* (dead), FRESH MEAT, VEGETABLES, MUSHROOMS, BULBS,† and SEEDS† (Garden and Agricultural).

Distance.	2 lbs.	8 lbs.	7 lbs.	9 lbs.	10 lbs.	12 lbs.	16 lbs.	20 lbs.	24 lbs.	36 lbs.	48 lbs.	Above 48 lbs. per lb
	d.	*d.*	*d.*	*d.*	*d.*	*d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*d.*
Up to 30 miles	4	5	6	6	6	6	0 6	0 6	0 6	0 6	0 6	½
„ 50 „	4	5	6	6	6	6	0 6	0 6	0 6	0 9	1 0	½
„ 100 „	4	5	6	6	6	6	0 7	0 8	0 9	1 2	1 6	½
„ 200 „	4	5	6	7	8	9	0 10	0 11	1 0	1 6	2 0	½
Above 200 „	4	5	6	8	9	10	1 0	1 2	1 3	1 11	2 6	½

* Not applicable between stations in England and stations in Scotland.

† Includes collection as well as delivery within usual limits.

This list of rates is deserving of study because it will enable unprejudiced persons to judge for themselves whether or not there is really any foundation for the allegation that British agriculture is being crippled by extortionate charges on the part of the railway companies.

It was further announced that the company were "prepared to arrange special rates for regular consignments of agricultural, farm, and dairy produce sent in large quantities by goods or passenger train," and information was given as to where application for these special rates should be made.

The mere issue of these posters and handbills would have been sufficient had the company desired simply to convince the world in general that they were desirous of "helping the farmers." But the absolute sincerity of such desire was shown by their taking action along lines of which the world in general was not likely to hear at all without some such occasion as that which now presents itself for making the fact known.

The following memorandum, dated April 29th, 1896, and addressed "To Goods Agents and others concerned," was sent out by the Chief Goods Manager:—

Referring to the instructions you have already received with reference to the endeavours that are being made to

give increased facilities for the transit of farm produce over the railway, and the posters that will be exhibited at the stations in connection with the matter, I wish to impress upon you that every effort must be taken to increase this business, both in the interests of the farmers and the Company. The Company are prepared to put into operation, where they do not at present exist, low special rates for regular consignments sent in fair quantities, and also to, as far as possible, give an improved service to distant markets.

You should take every opportunity of notifying this by personal communication with the farmers or growers in your district, and all applications for particulars of the rates and arrangements should be sent to your District Goods Manager, with full information as to the description of produce, packing, and quantities in which it will be consigned, together with the names and addresses of the applicants.

In accordance with these instructions representatives of the railway company waited personally on all the principal farmers, growers, or producers of agricultural commodities in every district within reach of the London and North Western Railway where there was any chance of business being got, in order to see whether, by any hints they could give, any assistance they could render, or any offer of low rates they could make, they might help the farmer, and, at the same time, bring traffic to the railway. The number of personal calls thus made was close on 1,000, and a considerable ex-

penditure, altogether, was incurred. Yet the applications for the proffered special terms during the ensuing twelve months represented a total of only 268 for the whole of the London and North Western Railway Company's system; so that a leading official was constrained to observe, in a report he drew up on the subject:—

> The comparative paucity of applications, considering the publicity given to our willingness to assist, confirms what has been already stated—that the agricultural depression does not largely exist in the districts we serve, and that where it does exist the remedy is not one within the powers of this railway company to provide.

All the same, the posters and the handbills already mentioned were issued afresh by the company at the end of 1903.

Then the Great Western Railway Company, in addition to holding the conference to which I have already referred, followed it up by others, and sent experienced officers to the farmers and market gardeners in the principal agricultural districts of the Western and Midland counties to bring prominently to their notice the fact that by joining hands instead of acting individually they might obtain full advantage of reduced rates and increased railway facilities. The officers were further instructed to closely study the particular directions in which the

agriculturists thought further co-operation with the railway company would be of value. The results of this inquiry were carefully considered by the directors, several of whom are specialists in agricultural questions, and it was decided to adopt measures of a practical character for the purpose of meeting the three groups of requests into which the suggestions of the agriculturists fell. The chief points in regard to each of these groups may be mentioned, as showing the general attitude of the company in question towards the farming interests.

In the matter of the milk traffic the pastoral districts desired low rates for the conveyance of milk; train arrangements of an absolutely dependable character, so that places at a distance or on branch lines could obtain a share in the supply; improved arrangements for the return of empties, and Sunday trains on certain branch lines. To meet these requests, and to anticipate others, the directors codified a previously complicated system of charges, and brought all the rates within a simple mileage scale which they set out in a pamphlet they circulated; they opened seven branch lines for Sunday traffic; they constructed a large number of special milk vans upon framework similar to that of the best rolling stock; and they arranged

to concentrate the milk from specified districts at suitable junction stations, and to carry it thence at express speed. For the Wiltshire dairies, for example, the milk for London from the various stations in the district is focussed at Swindon, whence it is taken in "milk trains" to London at the rate of about fifty miles an hour, without any intermediate stop. At Paddington there is a line with platform and approach road set apart exclusively for the milk traffic, and the whole arrangement works so well that the company have carried 27,500,000 gallons of milk in a single year substantially without complaint.

Inasmuch as the allegation is constantly being made that the railway charges unduly affect the selling price of food products, it may be added with regard to this question of the milk supply that the dairy farmer in the West of England gets about sixpence per gallon for his milk, and the railway company will receive, on an average, one penny per gallon for bringing it to London, where, as sold to the ordinary householder, it will probably fetch 1*s.* 4*d.* per gallon. If, therefore, the farmer gets too little, or the consumer pays too much, for the milk, the fault can hardly be attributed to the railway. When on one occasion the Great Western Railway

Company reduced certain rates for the conveyance of milk, with the intention of assisting the dairy farmers, the buyers availed themselves of the opportunity to reduce the prices they paid to the farmers, who were thus no better off than before. Better far would it be if the farmers would organize some system among themselves by which they could secure a greater control over the whole business, instead of simply calling upon the railways to reduce their rates to a level where they would cease to be remunerative. Would it not be possible for the British farmers to create in London a Central Co-operative Creamery Society on lines similar to the one which is being so successfully operated at Budapest, as told on pages 154–5?

The second group of requests had reference to farmyard produce for private householders. The farmers desired arrangements by which small mixed lots of butter, poultry, eggs, etc., could be cheaply and rapidly taken by passenger train, and delivered direct to the houses of consumers without intermediate agency of any description. This, of course, was practically the same system as the one referred to above, *minus* the supply of boxes by the railway company, and the directors willingly agreed that scales of conveyance charges should be issued to meet

the desired object. Under this arrangement a consignment weighing 24 lbs., and comprising (say) two couple of ducks or fowls, 24 eggs, 2 lb. or 3 lb. of butter, a tin of cream, with a certain quantity of fruit or vegetables, can be sent on the Great Western 50 miles by passenger train, and delivered at the house of the consumer (provided he lives within the usual limits) for an inclusive charge of sixpence. It seems scarcely possible, from the railway standpoint, that traffic such as this can be made to pay; but in any case it affords conclusive evidence of a desire to "help the farmer."

The third group of requests related to agricultural produce for markets and large traders. Low rates for such produce by fast merchandise train were asked for, with authority to lump together or aggregate the various descriptions of articles on conditions that would enable the producers to make such loads as to justify the despatch of through trucks direct to the towns to be served. Here, again, the desired concession was made, new tables of rates being prepared and issued to meet the arrangement stated; though when it came to getting the farmers themselves to group their lots, so that they could take advantage of the facilities thus granted, a good deal of difficulty was experienced.

They began to use just the same arguments as every other railway company, more or less, that has moved in the matter has heard. "They had always kept their trade to themselves, and intended to go on doing so, as they did not wish that their neighbours should know their business." It was further declared that "if the railway carried the goods for nothing it would not assist the producer to any extent. There was generally a good market near home for all that could be produced, with the advantage of getting ready money without worry or risk." The railway officials pointed out to them that, to obtain the fullest benefit of low railway rates, it was always desirable and frequently necessary that the producers within a given area or district should make arrangements for grouping their lots. If they would only overcome their prejudice against co-operation there was no reason whatever why they should not appoint one of their number to carry out the details for them.

Where, however, it was found difficult to induce the farmers to combine, there was generally some enterprising middleman who would buy direct from the farmers—themselves quite satisfied to get cash down—and do the grouping of lots on his own account, so as to take advantage of the railway company's concessions. The

farmers thus lost some of the profit they might have made had they adopted the full policy recommended to them by the railway, but by taking their produce to the middleman in the local markets, instead of waiting for the "higglers" or others to call for it, they got at least better prices than before. Altogether the effect of the railway company's concessions has been to bring about quite a little revolution in certain of the markets in the West of England.

On the South Eastern and Chatham Railway there was issued a circular giving tables of exceptional rates for the conveyance of fruit and vegetables from stations in the country to London, these rates being exclusive of collection, but inclusive of delivery to Covent Garden, the Borough, Farringdon, or Spitalfields markets. On this circular the following announcement was made:—

REDUCED CHARGES FOR LARGE CONSIGNMENTS.—When a sender forwards from the same station or siding to the same salesman and market in London a consignment of fruit or vegetables, or a consignment consisting partly of fruit and partly of vegetables, and elects to lump and tender such consignment at one time, the rate or rates applicable to such consignment will be subject to a reduction of 10 per cent. when the aggregate weight exceeds 2 tons, and to 15 per cent. when the aggregate weight exceeds 4 tons.

The same allowances will be made when a consignment of fruit or vegetables, or consisting partly of fruit and partly of vegetables, is the property of two or more senders, but in such cases, one of their number is, by arrangement amongst themselves, to be selected as the nominal sender. His name is to appear as such on the consignment note handed to the Company, and he is to be authorized by his co-senders to receive, on their behalf, the allowances above referred to.

Here was an excellent opportunity given to the senders to obtain reduced railway rates by grouping their consignments, and the offer has since been renewed from time to time; but so far as the officials of the railway can recall, no senders on the company's system have yet taken advantage of it.

On the London and South Western Railway a practical effort was made several years ago to effect some sort of combination among the farmers in one of the important agricultural districts served by that line, with the view of getting them to combine their consignments, so that they could gain the advantage of lower transit rates. The unsatisfactory results suggested that the time was not then ripe for such arrangements; but in January, 1904, the company gave fresh evidence of their desire to do what was possible in the way of promoting the interests of agriculture. They issued a well-

arranged pamphlet in which were tabulated the rates for conveyance by passenger and goods train on the South Western system of milk, butter, cream, eggs, game, honey, flowers, fresh meat, dead poultry and rabbits, fruit and vegetables, grain, manure, etc., explaining that "these low rates have been compiled with the object of bringing the producer and consumer into closer touch by affording facilities for the quicker transit of all kinds of farm and dairy produce, fruit, and other perishable goods, thus enabling the producer to secure a wider market for his produce, and the consumer to obtain it direct with promptitude and at a reasonable charge." A circular letter, to the following effect, was at the same time issued by the General Manager, Sir Charles Owens, to agriculturists resident within convenient reach of the South Western lines:—

The London and South Western Railway Company beg to announce to farmers and others that, in order to assist them in disposing of their produce, they have decided to issue a pamphlet, giving the names of those residing in the district served by their line who would be willing to supply customers direct with dairy, farm, or market garden produce.

This pamphlet will be extensively circulated in London and other large centres of population, and the arrangement widely advertised in the Press and by every possible

means. There is, therefore, every prospect that the scheme will be of material assistance, not only to producers, but also to the consumer.

A form of application is appended to this communication, and it is requested that anyone who has produce available for disposal under the system indicated will fill in the necessary particulars, and send the form to the Station Master at the nearest London and South Western Station.

The issue of these two pamphlets would seem to suggest that the company had fallen back on the alternative of encouraging the "individualist" system, pending the development of combination; but they are still hoping to see such combination brought about, for in the pamphlet which gives details as to rates they say, under the head of "Goods Trains Arrangements:"—

A special feature of the rates is the relatively lower charge made for consignments of 1 ton and upwards, and it is hoped that senders, by combining together to send the largest possible quantities, will secure for themselves the advantage of these exceptional rates.

Here, on the face of it, is clear evidence of a willingness to "help the farmer"; but to enforce conviction one needs to see what are the rates actually charged. Taking those for the conveyance of agricultural produce by passenger train, I find that a hamper weighing 24 lbs., and

containing, say, a mixed consignment of poultry, eggs, meat, fruit, vegetables, cream, etc., will be carried a distance of 100 miles, and delivered free, for ninepence, representing a little over one farthing per pound. A parcel weighing 1 cwt. would be carried the same distance for 2*s.* 2*d.*, or less than a farthing per pound, and larger consignments would be proportionately cheaper.

All this seems reasonable enough, and it hardly encourages the idea that any distress from which British agriculture may be suffering is due to excessive railway charges; but still greater benefits are open to the farmers who will aggregate their consignments, and take advantage of the one, two, or three-ton rates for transit by goods train. To show how this might operate, I will assume that at Petersfield, Hampshire, which is fifty-five miles from Waterloo, there are farmers who have arranged with customers in London to supply them with, altogether, 112 weekly hampers of produce, each representing a weight of 20 lbs. The railway charge per hamper for carriage from Petersfield and delivery would be 8*d.* But if the farmers in question grouped their 112 hampers into one consignment for delivery, in the first instance, to a joint representative in London, they would be able to send it at the 1-ton rate, which would represent a charge of 15*s.* 10*d.*,

instead of a total of £3 14*s.* 8*d.*, or, in other words, 1¾*d.* per hamper instead of 8*d.*; while the combined packages could be despatched from Petersfield by the goods train leaving at 7.25 in the evening, and reach London in ample time for delivery early the next morning, so giving practically the same advantage as would be gained from despatch by passenger train. There is still the cost of distribution in London to be reckoned. But if a little combination formed by the growers at Petersfield were to join with similar combinations in other districts in fixing upon some one agent or representative in London, who would thus be enabled to control a business of substantial dimensions, it should be possible to arrange for delivery in London at a cost of about 1*d.* per hamper. This would increase the total cost to 2¾*d.* per hamper, as against the 8*d.* paid under the existing system. All that is needed to effect this result is a very moderate amount of organization alike in the country districts and in London.

To a railway company the grouping into a single consignment of a considerable number of small parcels which would otherwise be handled separately means a great saving of labour, not alone in the matter of loading, unloading, and delivery, but also in the clerical work done, and

railway charges must necessarily bear some relation to the services rendered. Take the case of a parcel, however small, sent by passenger train. It is first entered on a way-bill, which is made out in duplicate. One copy of this way-bill is placed on a clip to be sent at the end of the month to the chief office for the preparation of the monthly returns, on which it will represent a separate item; and from thence it will go to the Railway Clearing House, where, if the parcel should have travelled over the lines of different companies, the proportion due to each must be assessed. The second copy of the way-bill will have been delivered with the parcel to the guard of the passenger train. At the receiving end all the way-bills are collected from the guard by a railway servant sent to meet the train for this purpose. He takes them into the parcels office, where a clerk will check both parcels and way-bills. Should one of the former be missing a separate report must be made to the sending station, and it may be that considerable correspondence will ensue, and inquiries be made up and down the line, before the lost package is found. Should parcels and way-bills agree, those of the former which are to be delivered by the company are given over to the delivery clerk, who will proceed to make out

the delivery sheets. On these he must carefully record any charges to be paid by the consignee, or, in the case of a prepaid parcel, he must ascertain the distance it is to go, lest the destination is beyond the company's free delivery limits. In that case the parcel is handed over to a suburban carrier, an extra charge for delivery being specified accordingly. Then the parcels are given to the carmen, who, after delivering them, will hand over to the cashier the money they have collected. The cashier will make his records in the books he keeps, and the papers will pass on to the accounting clerks, who will have to make up the summaries and abstracts against each of the stations from which the parcels in question have been consigned.

Most people, I should imagine, would think that by the time a railway company had done all this—in addition, be it remembered, to carrying the parcel—it had well earned the few pence it charged. They will, also, understand more readily the force of my suggestion that there is but a small scope for profit for a railway company in this small-parcels business, however willing they may be to extend it in the interests of agriculture. If, again, the reader will endeavour to realize the amount of trouble in-

volved in going through the above processes 112 times in the case of the aforesaid Petersfield parcels, he will see why it is much less costly to a railway company to handle one big consignment than a mass of small ones. The clerical labour is practically the same; though it may be even greater in the latter case, because the smaller the parcel the more likely it is to go astray, and lead to endless trouble before it is found. Effective agricultural organization means, therefore, not only lower railway rates for the farmers, but a decrease in working expenses for the railway companies.

Reverting to the London and South Western pamphlet, I find there some very low rates for the conveyance of milk. The rates charged per imperial gallon are—for distances not exceeding 25 miles, $\frac{1}{2}d.$; 40 miles, $\frac{3}{4}d.$; 60 miles, $\frac{7}{8}d.$; 100 miles, $1d.$; 120 miles, $1\frac{1}{8}d.$; 150 miles, $1\frac{1}{4}d.$; above 150 miles, $1\frac{1}{2}d.$ Under any circumstances such modest charges as these could hardly be called excessive; but they include more than appears on the surface. In districts where the passenger train service is not adequate for the conveyance of the milk, special milk trains are put on so as to avoid delay. Such trains are run to Waterloo, on week days, from Portsmouth Junction at 6.15 a.m., from Yeovil

6.20 a.m. and 7.12 p.m.; Salisbury, 8.15 a.m., and Templecombe 5.15 p.m; and on Sundays from Yeovil at 5.55 a.m. and 4.33 p.m., and Templecombe at 4.33 p.m. But the farmers require to have their cans back again as soon as possible. So the railway company not only run one series of special trains for the full cans, but they run a further series of specials for the prompt return of the empty ones, making no charge whatever for the latter service. Considering all these things, the scale of charges given above would really seem to be reasonableness itself, and if the farmers make less profit than they think they ought to get from the sale of their milk, they can hardly attribute the fact to any greed on the part of the railway companies.

The very small effect that railway rates should have on the selling price of any article of food in respect to which there has been such organization as will permit of the despatch of consignments in bulk is still more clearly brought out by the circular in regard to the charges for meat. The carriage, for example, from Crediton to Waterloo, a distance of 179 miles, of three tons of prime English beef would amount to little more than a fifth of a farthing per pound.

The last example I draw from this very in-

structive circular, as showing the attitude of the railways towards the farmers, is in respect to the rates for stable and town manure. For the conveyance of this commodity from Nine Elms in 6-ton lots, station to station, the London and South Western Railway Company charge per ton (to give only a few instances) to Alton, 47 miles, 3*s.* 3*d.*; Basingstoke, 48 miles, 3*s.* 2*d.*; Bursledon (a great strawberry growing district), 80 miles, 4*s.*; Fleet, 37 miles, 2*s.* 8*d.*; Guildford, 30 miles, 2*s.* 2*d.*; Mottisfont, 78 miles, 4*s.*; Petersfield, 55 miles, 3*s.* 6d.; and so on. Rates such as these (and on other systems they are about the same) should confer a great advantage on the farmers, and especially those at a distance from London; but they offer no direct gain to the railway company, more especially as the waggons used for conveying the manure cannot be utilized for back loading, and therefore run the double journey for the single small charge. The railway companies, however, regard a plentiful use of manure as likely not only to benefit agriculture but also to bring them larger freights later on, and they accordingly quote terms which, but for the possible subsidiary advantages, would be altogether unremunerative.

The examples thus far given have illustrated

the general policy of railway companies in dealing with the whole body of agriculturists in the districts served by their respective lines. As an appendix thereto, I should like to offer some instances of how railway companies may seek to foster the agricultural development of particular localities.

Some eight years ago it was found that the land in the neighbourhood of Girvan was well suited to the growing of new potatoes, and the growers and dealers asked the Glasgow and South Western Railway Company to encourage the starting of such a business by allowing them to send new potatoes from Girvan to Glasgow (a distance of sixty-two miles) at a lower rate than the existing one of 16*s.* 7*d.* per ton, which, it was feared, would render the trade unprofitable. After looking into the matter the railway company agreed to reduce their rate to 10*s.* The enterprise was developed with remarkable rapidity, and subsequently a deputation from the farmers and potato merchants represented to the railway company that a still larger business could be done if the rate were further reduced. Thereupon it was brought down to 9*s.* 6*d.*, and, later on, to 8*s.* 9*d.* Then, again, the railway company, finding that the farmers wanted large supplies of stable manure, took it

out to them from Glasgow at the rate of 3*s.* a ton, thus aiding the industry still further.

In point of fact the railway company sought to meet the wishes of the growers by every means in their power. But they had their reward in due course, for when the new potato season opens at Girvan the consignments will start at about 40 waggon-loads a day, and will rise to 200 waggon-loads a day for a period of three weeks, falling off again, then, until the season is over. Between June 16th and August 26th, 1903, there were despatched from Girvan station 5,250 waggons of new potatoes, representing a total of 13,500 tons. One may be absolutely certain that the industry would never have attained to such dimensions as these but for the ready assistance given by the railway.

Quite recently a farmer who proposed to start the growing of late varieties of potatoes in the Girvan district asked that a lower rate should be given for potato seed, of which he was prepared to send a consignment of 200 tons. To encourage this further enterprise the company reduced the rates for seed potatoes between the districts concerned for a period of three weeks, by which time the consignment in question would have been delivered. Now, too, that the

experiment of growing cabbages is also being tried at Girvan, lower rates have been granted in respect to these as well.

In Wigtonshire and other parts of Scotland it was found some years ago that the farmers were clearing out of their farms, and that the landlords were becoming poorer and poorer owing to the agricultural depression. Thereupon the railways lowered their rates for agricultural necessaries taken into these districts, and from every agricultural district in Scotland where such rates were not already in force they made special rates for grain, potatoes, and other agricultural products to the large centres of consumption either in Scotland or in England, thus helping considerably to bring about the improvement that has since been experienced in the localities in question.

Then there is the case of "The Bucks Arrangement," to which reference should be made as one that is, in various respects, especially instructive.

This "arrangement" was instituted on the London and North Western Railway to facilitate the despatch of ducks, fowls, butter, etc., direct from the senders' doors to London salesmen, and to ensure, also, the prompt receipt by the senders of the amounts due to

them in respect to such produce. The railway company supplied cloths and hampers; they sent a man to collect the produce; they carried it by rail and delivered it to the salesman in the London markets to whom it was consigned; and they afterwards obtained from such salesman the amount due to the sender, to whom they then paid it over. In 1880, when the business was in a prosperous condition, the sum total thus collected for the local producers of poultry, without any charge for the services so rendered being made by the railway company, was over £3,000, and the benefit conferred on the consigners—who were mostly producers of a "small" type, to whom a prompt settlement was a very great convenience—must have been considerable. What more the company could have done for them it is difficult to imagine. Later on, as the facilities offered by the Post Office for the remittance of money were developed and better understood, there was no longer any need for the railway company to continue their rôle as financial intermediaries in respect to these branches of the business. As regards the butter forwarded from Bucks to London, the senders were chiefly farmers whose accounts were already settled monthly by the salesmen direct.

Meanwhile changes had been proceeding in other directions. The prosperity spoken of had been due mainly to the high prices obtained for Aylesbury ducks, which then had a monoply of the market at a certain time of the year. But the time came when the local producers encountered a competition which they were not energetic enough to overcome. Seeing what good prices Aylesbury ducks were realizing on the market, the farmers of Norfolk, Suffolk, Devon, and other counties improved their own breeds by judicious crossings, and finally they produced birds which are almost — though, perhaps, not absolutely—equal to the Aylesbury variety. From these other English counties, therefore, large supplies are now coming on the market, and still further consignments are received from Russia, Hungary, Canada, the United States, and even from Montevideo. Instead of there being any longer a "season" for ducks, those birds can now be obtained by the dealers from all quarters throughout the year, and a pair of Aylesbury ducks which in days gone by would have fetched 25*s.* could not now be sold for more than from 6*s.* to 8*s.*

In the opinion of one experienced wholesale dealer, the fault of the Bucks producers has been in continuing to devote their energies exclusively

to one particular breed, instead of bestirring themselves and showing more enterprise in facing competition; but when the dealer in question ventured to suggest to an individual sender a certain change of method which he thought an improvement, the only result was that the sender took offence, and withdrew his supplies. At the present time the rearing of Aylesbury ducks is mostly in the hands of cottagers, who breed them indoors, and force them so as to be ready for the market within seven or eight weeks in the early spring, when they command the best price.

As for butter-making in Bucks, that has practically ceased, the farmers finding it more profitable — or, at least, less trouble—to send their milk to the condensed milk factories at Aylesbury, Buckingham, and Winslow, instead of changing their methods to meet the cheaper production of Irish and foreign butters. Not only is no butter now being sent from Aylesbury, but supplies thereof are reaching that district from Dorsetshire, Somersetshire, and Ireland.

Reduced to statistics, the actual decline of the poultry and butter business in Bucks, under the circumstances here narrated, may be shown by the following comparative statement taken from

the London and North Western Railway Company's traffic receipts for that county:—

	1880.	1903.
Number of flats carried (poultry and butter)	36,063	6,600
Receipts	£2,495 8*s.* 0*d.*	£359 10*s.* 2*d.*

So far as the railway company are concerned, the milk carried to Aylesbury, Buckingham, Winslow, etc., is an ample equivalent for the loss in regard to poultry and butter. Whether or not the final results are as satisfactory to the local producers is more than I can say; but in any case this story of "The Bucks Arrangement" throws an interesting sidelight on the changing conditions of British agriculture, and the relations thereto of our railways.

The evidence I have already adduced should be sufficient, I think, to convince the most sceptical of the genuine and practical nature of the interest felt by British railway companies in the increased prosperity of that native agriculture from which they have so much to hope in many different ways, apart from the actual amount of produce they convey on their lines. There is only one further aspect of this particular branch of the subject on which I should like to bring conviction to the minds of the British

public; that is to say, I would fain impress upon them the fact that when complaints are made to railway companies by representatives of the agricultural interest they are investigated with a thoroughness of which few persons outside the general offices of a railway company can have any conception. But this chapter has already gone to such length that I must now content myself with a single "case in point."

A few years ago loud and persistent complaints were made by private firms and companies in Ireland of the unsatisfactory condition in which consignments of butter sent to England were reaching their destination, as compared with the Danish supplies, although the latter travelled a much greater distance; and the blame was alleged to be attributable to defective railway arrangements. With a view not only to investigating these complaints, but also to ascertaining if any improvement could be brought about by an adoption of Danish methods, the London and North Western Railway Company (which was then bringing some 5,000 tons of Irish butter per annum to England *viâ* Dublin Wall) appointed a deputation of its officials to visit Denmark for the purpose of making an inquiry as to the conditions under which the Danish product was

despatched. The same officials were subsequently to visit North Eastern ports to see how the butter was handled there on arrival; and, finally, they were to ascertain the corresponding conditions in respect to the Irish product. All this the deputation did, early in 1899, and the report they drew up occupies fifteen pages of printed foolscap, much practical information being given in respect to even the smallest of details.

The report itself is interesting because it brings out very clearly the difference between home and foreign methods in the consignment of dairy produce, and shows how faults which traders are only too ready to attribute to the railways may, in point of fact, be in no way due to them at all. From Denmark, the deputation found, butter is sent in weekly consignments, in order that exporters can get the advantage of handling, and also of shipping, in large quantities. Three boats, for example, which the officials saw despatched from Copenhagen one Thursday night for Hull, Leith, and Newcastle respectively, conveyed 12,326 casks of butter, the value of which was about £70,000. Pending the despatch of these large weekly cargoes, the butter —in the making of which a good deal of ice has already been used—is put into cooling stores

provided with refrigerating apparatus, the temperature of the butter being thus reduced to 48 deg. Fahrenheit. This ensures the maintenance of the "texture," as well as of the flavour and the aroma, so that the butter carries well, and arrives, as stated, in good condition.

But in Ireland the circumstances were found to be altogether different. When foreign competition was less keen, Irish butter was despatched in large quantities to a comparatively few consignees, and, inasmuch as it was then highly salted, it could be kept for long periods without deterioration. With the advent of foreign competition, however, and with, also, the improvement in the facilities for rapid transport, the Irish producer opened up a direct trade with retailers in various parts of the United Kingdom. This meant a daily consignment of small lots — instead of the previous periodical despatch of wholesale quantities—and a corresponding increase in the difficulties of conveyance. At the same time the demand of the market changed to one for fresh butter, in place of the salted variety, and this fresh butter, generally made without ice, and rarely put into a refrigerator before being despatched, would be sent off by train and boat almost as soon as it had been made. It thus had no

chance of first getting reduced to the temperature at which alone one could expect it to carry well.

The railway company were quite ready to incur the substantial expense of providing refrigerating apparatus on their Dublin steamers in the interests of the trade; but the experts consulted declared that unless the butter had been cooled down before being despatched, refrigeration on board the steamers for the few hours occupied in the passage would serve no useful purpose.

The inquiry showed, therefore, that not only were the conditions complained of in no way due to the railway company, but it was the traders alone who could provide an efficient remedy. This they are now doing to a certain extent, for of the existing dairies in Ireland about one-sixth either have been, or shortly will be, equipped with refrigerator rooms.

CHAPTER XXVI

CONCLUSION AND RECOMMENDATIONS

THE task I set myself to accomplish at the outset of the present work was to show (1) that the advantages by means of which foreign agriculturists were able to compete successfully with English producers on our own markets might be due to far other causes than any question of railway rates; (2) that, instead of British railways being the natural enemies of British agriculture, they are profoundly interested in its prosperity — on much broader grounds than merely the amount of produce they carry—and have themselves shown great energy in endeavouring to promote the welfare of the farmers; and (3) that if the prosperity of these farmers is to be promoted it must be done, not by persistent bickerings against the railways because they do not carry retail lots at wholesale prices, or grant concessions which would transform them from a commercial under-

taking into a philanthropic institution, but by the adoption of the improved methods, and especially of the principle of co-operation, rendered necessary alike by the progress of agricultural science, by the competition of new countries, by the annihilation of distance through the improvement and the cheapening of facilities for ocean transport, and by that industrialization of agriculture which requires that the farmers of to-day should study the science of marketing just as thoroughly as the science of production.

It is for the reader to say whether or not I have succeeded in accomplishing this task; but for my own part I must affirm that such investigation as I have been able to make into the conditions existing in other countries has profoundly impressed me with the changes which are there being brought about—changes, indeed, that are having a far wider influence than simply on the fortunes of the individual farmers.

It is, I think, no exaggeration to say that when some future historian deals with the closing years of the nineteenth century, and the opening years of the twentieth, he will, in his survey, especially, of the countries of Continental Europe, turn much more readily to the silent revolution brought about in their rural districts, as the out-

come of the agricultural revival, than he will to many of the changes of Government or other political events that loomed so large in the view of their contemporaries. He will trace in these countries, during the period in question, the disappearance of such conditions as those that led in earlier days to peasants' wars and rural risings. He will see how classes that for centuries had been regarded as the most hopeless victims of dull routine and narrow-minded individualism were led to adopt new ideas, to avail themselves of the teachings of scientific research, and to recognize the paramount need—following on altered circumstances—for taking common action to gain common advantages. He will find how, with the strength that comes from unity, groups of foreign peasants had invaded British markets, and gained a commercial victory over farmers mainly superior to themselves in means and social *status*, but content to stand alone, each more or less mistrustful of his neighbour. Then he will learn, also, how the changes thus brought about in Continental conditions tended to the breaking down of class prejudices, by bringing all sections of the rural community into closer touch and more friendly intercourse one with another; how they checked, if they did not actually nullify, the economic depression that

once threatened them; and how, finally, they promoted not alone the material, but the intellectual, the social, and the moral advancement of the agricultural communities.

When, from a review of conditions such as these, with their important influence on the evolution of society and on the world's progress in general, one turns to a comparison between the typical Continental and the typical British farmer of to-day, and traces the cause of the foreigner's success, there are some strong contrasts to be observed. The British farmer has been, in the main, essentially an individualist, content to do as his father before him did, depending more on tradition and practice than on science, self-reliant and self-sufficient, ever complaining of fate, and expecting the world to adapt itself to his ideas instead of looking to him to adapt his methods to changed conditions. The foreign farmer who has thoroughly imbibed the spirit of combination is a man of a very different stamp. He gets his seeds, his artificial manures, and his agricultural appliances through a local society, which in turn arranges through a provincial or a national federation to buy such things, of trustworthy quality and at the most favourable prices, and transport them on the railway at wholesale rates; another society enables him to obtain the use of costly

agricultural machinery which he could not purchase for himself; and still another will give him skilled advice on all matters connected with the cultivation of his farm. He improves his stock with the help of societies organized with this special object in view; he joins with other farmers in his district in engaging the services of an expert who will analyze the milk supplied by each cow, and advise as to feeding, etc.; he sends the milk to a co-operative dairy; he forwards his pigs to a co-operative bacon factory, and he delivers the eggs laid by his fowls to a co-operative egg-export combination, receiving, in each case, not only a better price for the commodity than if he made, or traded, on his own account, but a share also in the profits. Then he joins with his neighbours in insurances of their stock, their farms, and their produce on such lines as to secure the lowest possible terms; he helps to form agricultural credit banks which will make him and his fellows independent of the professional money-lender; he has clubs or institutes for the purposes alike of agricultural instruction and social intercourse; and he ends by producing crops in such abundance, and at so comparatively low a cost, that he has no difficulty in competing with the British farmer, who keeps mainly to the practices of his

forefathers, the distance of the foreigner from our markets being fully counterbalanced by the subsidiary advantages he secures for himself alike by his improved methods and by his resort to combination.

But the awakening has come. The conviction is spreading among the agricultural community at home not only that "something must be done," but that they should do what they can for themselves without further loss of time. The bogey of excessive rates imposed by railways supposed to be indifferent to the welfare of the rural districts through which they run their trains may not have disappeared, but it is disappearing. There are seen to be other considerations besides railway rates, and the assurance of the railway companies that equality of conditions in respect to home and foreign produce will meet with equality of treatment is at last gaining acceptance. Even, again, those who look for the salvation of British agriculture to tariff reform and "protection" must see that, whether they achieve their desires in this direction or not, the need for agricultural organization will still remain. This truth has been realized alike by "protected" Germany and "free trade" Denmark. So the question is —"What should the British farmers do in order

to secure this organization, and put themselves, as far as possible, on the same level of advantage as their foreign competitors"?

The first essential in giving an answer to this question has been to show the nature of the various developments to which agricultural co-operation abroad has led. This I have sought to do in the present volume, which offers, as I think I may fairly claim, an abundance of suggestive facts for the consideration of would-be agricultural reformers in this country. Happily, too, the foundations of an effective system have already been laid here by the representatives of the Agricultural Organization Society; and my first recommendation, as the outcome of such investigation as I have been able to make into the general question, is that a generous degree of public support should be given to this society in order that its excellent work may be continued on a broader basis. Any unnecessary multiplication of independent and overlapping agencies is an evil which should be avoided, and, from what I have seen or learnt of foreign systems, I do not think that any organization could have been started on lines more practical, and better adapted to meet the particular conditions of our own country, than one finds represented by the general policy of the society in question.

In two respects, at least, that policy differs from the methods generally adopted by organizers of public movements in Great Britain. In the first place it has been sought to keep the working of the society in the hands of men who have a practical acquaintance with the position and the needs of agriculturists, rather than seek to impress the world by a long list of supporters who might carry much weight with "Society," but would not favourably impress the working farmer. In the second place there is no idea of framing, in London, cut-and-dried schemes to which the agricultural districts are expected to adapt themselves, the entire machinery being operated from some office in the Metropolis.

The aim is, rather, to secure the creation, throughout the country, of the greatest possible number of local co-operative, self-governing associations, each affiliated, it is true, to the central organization, but each fulfilling its own particular purpose according to the special needs of the locality where it exists, and looking to a common centre for advice only, or for the attainment of such advantages as require a united effort. In other words, instead of a start being made with an elaborately organized central body in London, gradually extending the ramifications of its machinery into the country, each rural

parish is invited to act on its own account, and (with the guidance which London offers to give) begin a little network of local activity which, while regarding its own particular village as its real centre of action, will stretch out until it touches the similar network set up by its neighbours, parishes thus associating with parishes, and counties with counties, until a really national organization can be attained as the final outcome of the movement rather than the starting-point.

It is this same idea of not attempting too much to begin with that has led most of the agricultural co-operative associations yet formed in England to adopt, so far, only the elementary form of combination represented by collective purchase. Collective sale is a higher standard which will be duly attained when the education of farmers in matters co-operative has been sufficiently advanced; but collective purchase has been universally found to represent the most practical and the most hopeful means of making a start. It has the disadvantage of raising a certain amount of opposition on the part of manufacturers and traders; but Continental experience shows that agricultural co-operation has been a decided benefit to honest manufacturers and traders. It has greatly in-

creased the demand for agricultural necessaries, and has allowed of big orders being got direct from the societies, without any expense in regard to travellers or agents, and without any risk of bad debts. The only persons who need be afraid are the dishonest traders whose seeds, fertilizers, or feeding-stuffs will not bear the test of those strict analyses which a society is so much better able to exact than an individual purchaser. The wisest manufacturers, therefore, will be those who hasten to make friends with the agricultural societies—which represent a coming force that cannot be withstood—instead of opposing them with "rings" or other difficulties, persistence in which must simply mean that the societies will either manufacture for themselves, or else make their purchases abroad. In fact, the foreign manufacturers, with their experience of what good customers agricultural syndicates may become, are already coquetting with the English societies with a view to securing their patronage.

If, in spite of all that I have said, farmers on the one hand, or manufacturers on the other, may still have their doubts as to the value of these purchase societies, or the amount of trade they may represent, I would commend to their notice an article in the *Empire Review* for December, 1903, by Mr. Theobald Douglas, on

"How to Increase Britain's Agricultural Production." I have here room for only a few passages. Mr. Douglas says, among other things:—

The fundamental reason for the depression of agriculture in Britain is not low prices but small crops, and British farming can only be benefited by increasing the size of the crops without adding much to the cost of production. . . . Belgium, although thickly populated, supplies nearly the whole of London, as well as herself, with vegetables. . . . In England there are cattle and horse breeding societies; but of what use is all this when fodder is wanting? . . . In 1902 the imports into England of meat, cattle, oats, butter, margarine, milk, and cheese were to the value of £86,000,000. These imports she could produce herself if the soil were so manured as to give double or treble the yield of fodder. . . . The increase of yield in Continental countries has been accomplished, despite stubborn opposition, by the introduction and application of the principle that those nutritive vegetable substances which have been extracted from the soil by the crops must be replaced. But there is by no means sufficient farmyard manure to supply the soil's needs. . . . The most important question for Great Britain is to teach the farmer how best to use the different (artificial) manures, and to furnish him with the required manures at the cheapest possible rate. The use of mineral manure would never have been so general in Germany had it not been that both these questions were thoroughly and systematically examined by special organizations throughout the country whose influence penetrated to every village. These organizations are agricultural co-operative corporations which afford the farmer the opportunity of buying the right sort of manure at a cheap price.

The actual extent to which the German farmer has availed himself of the opportunity thus offered is sufficiently indicated by the following figures, which Mr. Douglas gives as showing how the use of fertilizers increased in Germany between 1880 and 1902 :—

Basic slag	from	200,000	to 1,100,000	tons.
Superphosphate	from	400,000	to 900,000	tons.
Potash	„	150,000	„ 350,000	„
Nitre	„	100,000	„ 400,000	„

These facts and figures should, I think, relieve the farmers of any lingering doubt as to the course they should adopt, and the manufacturers of any reluctance to welcome an innovation that evidently means a big increase of business for somebody!

So I place in the forefront my recommendations that every encouragement should be given to the efforts already being made to promote combination among the British farmers. But experience has already shown that no really effective scheme of agricultural organization on a widespread basis can be carried out, even in Great Britain, unless supplemented by some practical system of co-operative agricultural credit banks, arranged on so comprehensive a scale as to meet the varying wants of all our agricultural classes. There may not be in

England, Wales, and Scotland so large a proportion as in Ireland and in various Continental countries of those very small cultivators to whom the loan of £5 or £6 from a co-operative village bank would be a great personal convenience. A certain demand for such facilities there undoubtedly is on the part of labourers and very small producers, and such demand the Co-operative Banks Association should, with adequate support, be well able to meet. But a wider basis of operations than this is required to answer the requirements of farmers who would want to borrow more substantial sums, and might find it an inestimable benefit if they could obtain them from a co-operative credit bank.

Still more effectually would such a bank facilitate the operations of an agricultural association, which would secure loans on the individual and collective credit of its members for the purchase of the necessaries required by them, and receive payment in such convenient instalments as might be arranged. Especially could costly agricultural machinery be thus obtained by an association of farmers without their being required to advance any capital of their own, and without, in fact, their paying anything except the stipulated sums for hire, by means of which the sum expended

would be eventually repaid. While, therefore, agricultural science and the economic situation of to-day have rendered essential a greater resort to agricultural machinery, if only as a means of reducing the cost of production, agricultural combination has brought the use of even the costliest machines within the reach of the humblest cultivator, placing him in practically the same position, in this regard, as the most prosperous of his neighbours.

Whether the British farmer acts individually or collectively, the financial question calls, indeed, for serious consideration. It might even be argued that until the financial problems which arise have been satisfactorily disposed of, no great progress at all will be made. In almost every agricultural district in Great Britain farmers or cultivators of the smaller class are practically in the hands of commission-men or brokers who advance money to them before their crops are ready, and afterwards get the produce at substantially less than its legitimate value, because of the financial obligations which the growers incurred towards them at a time when they were pressed for money. Not only does the individual farmer suffer, but the market price of the commodity in question is affected. Illustrations of these practices could especially

be drawn from the hop-producing districts of Surrey and Hampshire, where it is no unusual thing for the hop growers who begin with obtaining advances from the dealers to finish by realizing about three-fourths of the actual value of their crops.

An agricultural co-operative association, backed up by an agricultural credit bank, could meet this evil by itself undertaking the sale of the produce, advancing to the farmer the greater part of the amount which the crop might be expected to realize, and paying the balance to him—less a moderate charge for expenses—when the transaction had been completed. In this way the grower would no longer be at the mercy of the dealers, better results would be obtained for the sale of individual lots, and there would, also, be a greater prospect of the market prices being maintained, in which case the larger class of growers would benefit as well as the small ones. Reference to the chapter on "Hungary" will show how effectively the system here described has been carried out in that country in regard to the production and sale of wheat.

There is no need for me to enter now upon any detailed statement concerning the precise lines to be followed in the formation of those co-operative credit banks which would provide

the good financial resources needed by the Agricultural Co-operative Associations to carry out the above-mentioned policy of defence, in addition to the other arrangements in respect to purchase, etc. But on the question of ways and means I would commend to those who are interested in this branch of the subject a perusal —or even a re-perusal—of the chapter on the position in Italy, where, as I have explained, the savings effected by the artisans in the towns are rendered available for the purpose of loans to agriculturists in the district in which they have been obtained, instead of being sent away to be invested in Government securities, or to be put into, perhaps, dubious foreign speculations. The financial position of Italy is, of course, altogether different from that of Great Britain; but if, for instance, the deposits made in the Post Office Savings Bank by the working classes in one of our great industrial centres could, under some absolutely secure system, be utilized to encourage the starting of co-operative credit banks in the surrounding agricultural districts, the result would be not only to confer a great advantage on the farmers, and not only to improve the general position of agriculture, but also to produce an increased demand for agricultural machinery,

etc., the supply of which would mean that the artisans who had saved the money would get not only as good a rate of interest as they do at present, but a bonus thereon in the form of more employment.

It may, perhaps, be thought a matter well worth considering whether or not anything can be done in this direction, thus rendering the savings in question directly reproductive. But in any case the scope of the Co-operative Banks Association will have to be widened, or some fresh arrangements effected so as to extend the advantages of co-operative credit to other than simply the humblest of agriculturists; and in this connection it may be found desirable to amalgamate the Agricultural Organization Society and the Co-operative Banks Association, so as to give greater force to the efforts that each is making. How intimately agricultural organization and co-operative credit are associated I have already shown, and much better results would doubtless be gained by bringing these two phases of one and the same general movement into close touch — each directly operated by a committee of experts, with its staff of officers, but each forming part of one and the same body—than if they worked in complete independence the one of the other.

The same remarks apply to the National Poultry Organization Society, which should also form part of a federation on the lines here suggested. In fact, when these various societies go to the agriculturists, and reproach them—more or less—for not adopting principles of co-operation, it would be open to those agriculturists to reply: "Quite so; but why don't you societies set us the example among yourselves?"

To co-operative agricultural associations for commercial or other material purposes, and to co-operative credit banks for the financing of cultivators, small and large, might well be added some such organizations as the Farmers' Institute and the Women's Institutes which I have described under the heading of "Canada." In Great Britain, as in the Dominion, agricultural societies of this type should fulfil a most useful purpose from both an educational and a social standpoint, adding as they must do fresh interests to village life, and helping to relieve what must too often be its unspeakable dullness. From each of these points of view the formation of women's agricultural societies seems to be especially worth considering. It was, indeed, a very happy inspiration which led the wives and daughters of Canadian farmers to conclude that, inasmuch as women generally play so important

a part in the work of a farm, they should have an organization of their own which would enable them to do what they could to advance the welfare both of home life and of agriculture; and the example so set is one that might very well be followed in Great Britain—as supplementing, one may hope, an attempt which the husbands and fathers will make to form for themselves on British soil institutes akin to those of the Farmers' Institutes of Canada.

I would venture to suggest, also, that there is need for the existing county and local agricultural societies, Farmers' Clubs, etc., to revise their methods with a view to meeting the actual requirements of the present-day situation. It will have been seen that, in a number of the countries dealt with, agricultural societies which exist mainly for the purpose of holding shows and distributing prizes have been regarded as somewhat out of date, and fresh organizations have been set up either in their place or to supplement their action. It might be possible to modify any resort to this course in Great Britain by a reconstruction, as it were, of some of these existing agencies, and many suggestions as to the form such reconstruction could take may be gathered from the statements already given as to what is being done elsewhere. The

addition to ordinary shows of lectures giving practical explanations to young agriculturists concerning the good or bad points of the exhibits, as is done in Canada, would in itself, for instance, add greatly to the value of these gatherings.

The extent to which the State should take action in the matters under consideration is a point upon which differences of opinion may arise; but my individual conviction thereon is that the agriculturists should rely to the fullest possible extent on the two great principles of self-help and mutual-help, and depend as little as possible on State aid. My aim has been, therefore, to show what can be done by a resort to the former principles, rather than to say anything that would lead to greater dependence on the latter, and how very much there is that the British farmers can do for themselves in following examples set elsewhere has, I think, been abundantly proved.

No one can doubt the zeal shown by the Board of Agriculture, and the part played by that body in (among other things) spreading sound practical information by means of publications of various kinds, is deserving not alone of all praise but of still wider development. In by-gone days, however, there was too marked

a tendency on the part of the Board to pose as the farmer's friend, and to represent the railways as, in effect, the farmer's enemies. In the latter respect there has recently been a more generous recognition of what the railways have done, or, at least, have either sought to do, or are willing to do, provided only the agriculturists will meet them half-way. But there would still seem to be a disposition to get the farmers throughout the country to look to a centralized Government department in London for guidance and direction in all their wants. The recent appointment of "honorary correspondents to the Board of Agriculture" is a case in point. We have been told that "it would be the duty of these correspondents to make known to all the farmers in their respective districts what the Board of Agriculture could do for them, and to make known to the Board of Agriculture what were the wants of the farmers in their particular districts." To a certain extent this arrangement may serve a distinctly useful purpose. But the said honorary correspondents are to be chosen from among the "landowners, land agents, and farmers" of each of nineteen or twenty districts, and when the term "farmers" is sub-divided into "gentleman farmers" and "working farmers" (on the lines stated in the

"German View of British Agriculture"), it is just possible that the interests of the last-mentioned class—which interests are not necessarily identical with those of landowners, land agents, and gentleman farmers—might not always be either fully represented or adequately considered. If, on the other hand, the arrangement in question were to so far influence the said working farmers as to lead in the slightest degree to their depending on the Board of Agriculture to do for them what they could very well do for themselves, the result could only be deplored. Personally, I am much more favourably inclined towards an active fostering of self-help, on the lines laid down by those now carrying on the work of organization in the rural districts, than I should be towards any possible development, even from afar off, of such political and bureaucratic tendencies as those which *Die Gennossenschaft* grieves over in the case of Austria.

Where, I think, there is more especially distinct scope for Government action is in a greater expansion of the good educational work already done through the publications of the Board of Agriculture by placing on a better footing the whole system of agricultural education in its manifold phases, and more particularly as re-

gards rural elementary schools. To give an adequate account of all that our foreign competitors are doing in these respects would require a volume to itself; but the impression left on one's mind by an inquiry into conditions abroad is that whatever may or may not be the actual benefits we have derived from systems of elementary and technical education suited mainly to urban populations, we are sadly behind other countries in a really efficient method of preparing the children and young people in rural districts for those agricultural avocations to which they are expected to take when their school days are over.

In the higher branches of agricultural education good work is undoubtedly being done by the various agricultural colleges. But even better results would be obtained if these colleges were to follow the example of the agricultural colleges of Holland in devoting at least an hour and a half each week to instruction on the subject of agricultural organization; while Mr. Augustus Brigstocke's gift of two scholarships of £10 each to enable diploma students to pursue a course of lectures at Aberystwyth University College, as mentioned in the chapter on "England and Wales," is well deserving of emulation.

One may hope, also, that the County Councils will be disposed to take full advantage of the

powers they now possess for helping on the work of agricultural organization. How profoundly the interests they represent are concerned in the welfare of agriculture will be readily conceded. It is equally certain that the funds at their command for educational purposes could hardly be laid out to more practical advantage, from a "county" standpoint, than in securing an increase of agricultural prosperity. Happily, too, there is no need for them to incur any very great expense in the exercise of their new authority. The direction in which they could render the most practical assistance would be in guaranteeing the salaries of capable agricultural organizers, working in touch with all the various agencies, constituting a connecting link between them, and forming a means by which the general work of agricultural organization could be advanced. There would be no necessity whatever for any of the County Councils to elaborate schemes of their own. They need only help to build on the foundations already laid.

There is, however, one direction in which action already taken in the work of agricultural education might be modified. With the best of intentions, travelling dairies have been sent round various rural districts in order to give dairy workers instruction in better methods of

butter-making ; but the effect is to prolong the chances of life of that system of farm-dairies which ought to be allowed to die out in England, as in Denmark and many other countries, in favour of co-operative dairies, where the butter would be made in bulk from the milk collected from a large number of farms. Unless specially organized from the point of view of production in considerable quantities—as is the case with many of those on the Continent—travelling dairies do not necessarily qualify for work in those co-operative dairies which are the great desiderata. It would, therefore, serve a more useful purpose if the County Councils, instead of incurring the expense of travelling dairies, were to make grants for technical instruction in dairy work to be given in co-operative dairies of the Danish type. It might even be practicable, in case of need, for two or three counties to join together in setting up such a dairy for educational purposes, so as to promote the training, not alone of ordinary dairy workers, but also of dairy managers, for whom there will be a demand as soon as the co-operative dairy system is more generally spread throughout the country. Here, again, the expense need not be great, because the dairy set up ought soon to become practically, if not entirely, self-supporting.

The further suggestion has been made that County Councils should grant funds in favour of "agricultural lectureships"; but this is an idea I am not disposed to support. The British farmer would not be inclined to favour lectures on the technicalities of his business from others than experts of the very highest eminence in the country, persons, that is to say, whose services a single County Council might not be in a position to enlist, even if it surmounted the temptation of appointing as lecturer some person of local reputation only. In cases where lecturers of a second or third rate rank have been engaged by local authorities the results have sometimes been far from satisfactory. Any scheme for official agricultural lectureships might, therefore, be left to the Board of Agriculture, which would be in a much better position to engage the best talent for the purpose, and might be well-advised so to do, the County Councils devoting themselves, rather, to the employment of agricultural organizers. As regards the work of these individuals, it is found that they do far more good by having quiet talks with the farmers in their own homes, on the market, or at the village inn, than by holding public meetings to propagate their ideas, or by seeking to deliver addresses on technical subjects on their own account.

Finally, the conclusions at which I have arrived may be summed up thus:—

(1) That the British railway companies, instead of being in any way hostile to British agriculture, are profoundly interested in its welfare, for many reasons, apart from the amount of agricultural produce given to them to carry.

(2) That they have already offered, and are continuing to offer, abundant evidence of their willingness to do all they can to help the farmers—short of granting rates and conditions which would render their operations altogether unremunerative—and that what they now ask is that the farmers, in their turn, should meet them half-way, and so organize their business as to either avail themselves of advantages already open to them, or to be in a position to present a stronger case when they advance further suggestions.

(3) That in foreign countries changes in agricultural methods and a widespread resort to combination have brought about remarkable improvements in agricultural conditions; so that if the British farmer wishes to compete successfully with foreign produce he must be prepared to conduct his operations, as far as possible, on the same lines, and not content himself with cherishing grievances against the railways because they

do not quote wholesale rates for the transport of retail lots.

(4) That there is, at last, a prospect of England attaining to a practical scheme of agricultural combination on the lines successfully resorted to by foreign countries ten, twenty, or even five-and-twenty years ago, and that much more good is likely to result from encouragement of these efforts, and from a genuine attempt on the part of the farmers both to co-operate among themselves and to adapt their methods to railway conditions, than would follow merely from a blind persistence in unreasonable complaints and more or less unfounded allegations.

INDEX

AALSMEER, WINTER AGRICULTURAL SCHOOL AT: 128

AGRICULTURAL ORGANIZATION SOCIETY: Formation, 295; objects, 296–7; local societies, 297–9; central body non-political, 299–300; action respecting County Councils, 313–14; German writer's reference to, 323; support of, recommended, 370; policy of, 371–2; a suggested federation, 380–1

AGRICULTURAL SOCIETIES, OLDER TYPE OF: 60, 89, 157, 241, 243, 253–5, 289, 382–3

ALBUMEN FACTORIES: 20

APRICOT-GROWERS, COMBINATION OF: 68

ARGENTINA: Results of financial crisis, 236; railway development, 237; butter-making by Basques, 237; organization of the dairy industry, 238

ASPATRIA (Cumberland) AGRICULTURAL CO-OPERATIVE SOCIETY: 290, 300

AUSTRALASIA: Agricultural conditions in the past, 258–9; refrigeration, 259–61; agricultural education, 261–2; agricultural credit, 262–5; results, 266; effect on urban industries, 266; drawbacks, 267–8

AUSTRALIA: Drought in, benefits Argentina, 236

AUSTRIA: Eggs from, 16; abnormal development of State aid, 165–8; views of *Die Genossenschaft*, 167–8; conditions in the Trentino District, 168–9; Austrian bureaucracy undesirable in England, 385

BACON: Danish factories, 31–4; decrease in Swedish supplies, 177; factory in Belgrade, 213

BANANAS, TRAFFIC IN (United States): 234

BANK, PEASANTS' (State): In Poland, 216

BANKS, CO-OPERATIVE CREDIT: In Germany, 47–51; Belgium, 91–99; Italy, 110–24; Holland, 139; Hungary, 141–53; Austria, 165, 169; Switzerland, 174; Finland, 191–3; Servia, 210–11; Luxemburg, 223; Ireland, 273–7; England, 296, 310–12, 375–80

BANKS, RAIFFEISEN: 49, 91, 99, 113, 139, 145, 165, 169, 174, 210, 311

BANKS, SAVINGS: 110–14, 379

Banks, Schulze-Delitzsch: 49, 111
Bee-Keepers' Societies: Denmark, 36; France, 67; Belgium, 92 Ireland, 273, 283
Beetroot, Cultivation of: 45, 52, 67
Belgium: Railway rates, 5; an agricultural awakening, 88; Comices Agricoles, 89; statistics of local agricultural societies, 89-92; clergy and co-operation, 93-103; attempt to check Socialist propaganda, 94-5; Peasants' Guilds, 97; the Boerenbond, 98; action of Belgian Government, 99-101; dairy industry, 100; results of the movement, 102-4; Belgian vegetables for London markets, 374
Berger, M. l'Abbé: 99
Beverwijk, Fruit-Growing at: 134
Bewdley Co-operative Agricultural Society: 302
Bird Societies: 92
Blackberries: 79-83
Board of Agriculture: 315, 383-5, 389
Board of Education and Agricultural Co-operation: 313, 314-15
Boerenbond: 90, 91, 98
Bonus System (Australasia): 262
Boskoop, Winter Agricultural School at: 126-7
"Box System" of Consignment: 330-1, 339
Brassey, Mr. T. A.: 296
Brigstocke, Mr. Augustus: 310, 386
British Produce Supply Association: 291-4, 332
"Bucks Arrangement," The: 355-9
Bulgaria: Trade in Eggs with Belgium, 19
Butter: Danish, 28-31, 204-6; French, 74-6, 85, 86; Dutch, 131, 136-8; Swedish, 177-8, 179-80; Finnish, 186; Siberian, 197-206; "Confectioner's," 204-5; Argentine, 237-9; Australasian, 258, 267-8; English, 318, 358; Irish, 360-3

"Cabbage Train" (Holland): 136
Canada: Improvement of agricultural position in Ontario, 240; Farmers' Institutes, 241-8; Women's Institutes, 249-52; Agricultural Societies, 241-3, 252-5; position in New Brunswick, 255-57
Caper-Growers, Combination of: 67-8
Catholic Agricultural Union of Lombardy: 119
Cattle-Breeding: In Denmark, 38; Germany, 55; Belgium, 92; Italy, 121; Sweden, 179; Finland, 186; Poland, 218; Great Britain, 317
Cattle-Consultant (Finland): 186
Cattle, Societies for the Sale of (Germany): 55
Cauderlier, M.: 103

Cauliflowers: 84, 85, 121, 134-6
Central Association of Co-operative Bacon-Curers (Denmark): 34
Central Co-operative Creamery Society (Budapest): 154-5, 339
Charleton, Mr. W. L.: 295, 305
Cheese-Making, Co-operative: 298, 306-7
Chemistry, Agricultural: 43, 46, 60, 110, 128, 226-7
Chestnuts: 86
Cider-Makers' Societies (France): 66
Clergy and Agricultural Organization: In Belgium, 93-102; Italy, 105, 118-20; Holland, 139; Ireland, 288; England, 303-4
Comices Agricoles (Belgium): 89
Conciliation and Arbitration Boards: 73, 212-3
Confederation of Dutch Co-operative Creameries: 137
Cook, Prof. A. J.: 248
Cooke, Mr. Henry: 206
Co-operative Agricultural Associations. See under different countries
Co-operative Banks Association: 311, 376, 380
Co-operative Butter Export Association (Friesland): 137
Co-operative Stores: 151, 157, 173-4
Corn-Elevators, Co-operative (Hungary): 157-9
Corps des Agronomes (Belgium): 100
County Councils and Agriculture: In Canada, 244, 245; England, 313-15, 386-9
Court of Good Men (Servia): 212-3
Couturiaux, M. l'Abbé: 101
Cream-Making at Cherbourg: 76-7
Credit, Agricultural: Australasia, 262-5. See also under "Banks"

Dairies, Co-operative: In Denmark, 30-1; Germany, 52; France, 74; Belgium, 90, 92, 100; Italy, 105, 121, 122, 124; Holland, 136-8; Hungary, 157; Switzerland, 174; Sweden, 178-80; Finland, 185-7, 193; Siberia, 197-202; Poland, 218; Luxemburg, 222; United States, 233; Argentina, 237-9; Australasia, 267; Ireland, 269, 270, 272, 280, 283, 285; England, 303, 305-6, 318
Dairies, Travelling: 100, 387-8
Dalgas, Col.: 27
Danish Heath Society: 28
Dansk Andels Aeg-Export: 35
Denmark: Railway rates, 6; eggs from, 19; Danish *v.* Cornish methods, 23-4; economic crisis in, 25-9; dairy industry, 28-31; bacon-curing factories, 31-4; egg-export, 35-6; poultry societies, 36; bee societies, 36; live-stock insurance, 36-7; operation of societies, 37; agricultural associations, 37-8; agricultural labourers,

38–9; results of movement, 39–40; Danish and French methods compared, 74–5; effect of Danish competition on Belgium, 100; on Holland, 125; Danish methods adopted in Finland, 185; Danish enterprise in Siberia, 199–202; butter exports from Siberia to Denmark, 204–6; Danish *v.* Irish methods, 360–3

DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND: 271–2

DEPRESSION, AGRICULTURAL. See under "Economic Crises"

Die Genossenschaft: 167–8, 385

DISTILLERY SOCIETIES: In Germany, 56; France, 67

DOUGLAS, MR. THEOBALD: 373–5

DRAINAGE AND IRRIGATION, CO-OPERATIVE: 53, 56

DRUNKENNESS, CHECK GIVEN TO (Hungary): 151

DRYDEN, HON. JOHN: 253–5

DUCKS (Aylesbury): 355–8

DYMOND, MR. T. S.: 156–7

ECONOMIC CRISES: In Denmark, 26; Germany, 41–2; France, 59–60; Belgium, 88; Italy, 108–10; Holland, 125; Switzerland, 170–1; Finland, 184–85; Poland, 216; Argentina, 236; Australasia, 258–59; Ireland, 270; England, 316–17, 319

EDUCATION, AGRICULTURAL. See under "Instruction"

EGGS: British farmer and new-laid eggs, 13–16, 22; imports from France, 13; French methods, 13, 77–9; trade in foreign eggs, 16–23; eggs used for industrial purposes, 20–1; Cornish egg-trade, 23–4; Danish methods, 23–4, 35; egg societies in Germany, 55; exports from St. Malo, 86; eggs from Italy, 19, 121; egg societies in Hungary, 156, 157; in Sweden, 179; eggs from Servia, 214; Ireland, 273

EGYPT, EGGS FROM: 19

EMLYN AGRICULTURAL SOCIETY (Wales): 309

ENGLAND: Agricultural organization in its infancy, 289–90; National Agricultural Union, 290–1, 295; British Produce Supply Association, 291–4; Agricultural Organization Society formed, 295; objects, 296–7; present strength, 297; character of societies, 297–307; agricultural credit, 310; Co-operative Banks Association, 311, 376, 380; National Poultry Organization Society, 15, 302, 313; position of County Councils, 313–15, 386–9; Board of Agriculture, 315, 383–5, 389; German view of English agriculture, 316–26; attitude of railway companies, 327–63; Agricultural Organization Society deserving of support, 370–2; need for agricultural credit, 375–80; scope for Farmers' and Women's Institutes, 381 2; reconstruction of agricultural societies, 382–3; expansion of agricultural education, 385–9

Essex Farmers, Visit of, to Hungary: 164
Eyre, The Rev. G. F.: 303–4

Far Forest (Worcestershire) Agricultural Society: 303
Far Forest Pure Water Supply Association: 304
Farmer, British and Continental type compared: 367–8
Farmers, "Gentlemen": 319–20, 385
Farmers, "Working": 319–20, 385
Fertilizers: Beneficial use of, 45, 60, 86, 96–7, 101, 110, 122, 171, 374; increasing use of, 65, 278, 375; adulterated or inferior qualities, 61, 101, 278; cheaper rates through combined purchase, 65, 97, 101, 217, 222, 278; expert advice respecting, 224, 374
Finland: Geographical conditions, 183–4; an agricultural crisis, 184; dairy products succeed rye, 185; exports to Great Britain, 186–7; early days of combination movement, 187–9; Pellervo started, 190; Central Co-operative Commercial Bureau, 191; Central Co-operative Credit Bank, 192; impetus to agricultural co-operative societies, 193; operations of Pellervo, 194; results, 195
Fiscal Problem: 10, 206–7
Fish, Mr. Stuyvesant: 226, 234
Flax Societies (Ireland): 273, 283
Food Supplies, Effect of Railway Rates on: 351
Foot and Mouth Disease (Argentina): 236, 238
Framlingham Agricultural Co-operative Society: 301
France: Railway rates, 5–6; change in agricultural conditions, 58–60; early days of Syndicats Agricoles, 60–1; growth of, 61–2; Union Centrale, 62; Société des Agriculteurs, 62; provincial federations, 63; Syndicat Centrale, 64; Syndicat Economique Agricole, 66; Syndicat d'Industrie Agricole, 66; various, 67–72; educational work, 72; social results, 73; dairy industry, 74–7; eggs, 77–9; blackberries, 79–81; gooseberries, 83; potatoes, 83; cauliflowers, 84; butter, 85; exports from St. Malo, 86
Friendly Societies' Act: 311
Frost, Protection of Vines against: 70
Fruit: 56, 68, 86, 134, 162, 219, 223, 226–34, 261, 267, 273, 319

Galicia: Eggs from, 16, 17, 18, 22
Gardner, Mrs. J.: 251
Gebhard, Dr. Hannes: 187, 188, 190
General Consignee, The (United States): 230
Germany: State ownership of railways, 4–5; agricultural conditions, 41–2; agricultural instruction, 42–5; science and industries, 44–6; co-operation, 47; co-operative credit banks, 48–50; agricultural societies, 51–3; agricultural unions, 54; statistics, 55–6; use of fertilizers, 374–5

Gibson, Mr. Herbert: 236–7
Glasgow and South Western Railway: 353–5
Gooseberries: 83
Granger System of Consignment (United States): 230
Great Eastern Railway: 329–32
Great Western Railway: 332, 336–42
Guetti, Lorenzo: 169
Gurney, Mr. M. C.: 84–5

Haas, Dr.: 56
Hamilton, Lord Claud: 329, 330
Hannetonage, Syndicats de: 70
Harrison, Dr. James (Geelong): 260
Herbert, Mr. Arthur: 178
Holland: Railway conditions, 6, 135; economic crisis, 125; Royal Commission, 125; agricultural and horticultural education, 126–9; position of Dutch producers, 129–31; organization of market-gardeners, 131–5; dairy farmers, 136–8; agricultural unions, 138–9; results, 139–40
Hop-Growing: 219, 378
Hoorn (North Holland), Laboratory at: 129
Horse-Breeding by Hungarian Government: 162
Horse-Breeding Societies: 38, 67
Horticultural Societies: 63
Hudson, Mr. T. J.: 226, 234
Hungary: Organization of agricultural credit, 141–9; "new village life," 149–50; moral advantages, 150–3; National Agricultural Society, 153; National League of Agricultural Societies, 154; Central Co-operative Creamery, Budapest, 154–5; Hungarian Farmers' Co-operative Society, 155; county agricultural societies, 156–7; co-operative societies for the collection and sale of corn, 157–9; agricultural exhibition at Pozsony, 159; relation of State to agriculture, 160–4

Illinois Central Railroad: 225–34
Implement Dealers, Attitude of: 218, 279, 305
Implements, Co-operative Purchase of. See under "Machinery"
Industrial and Provident Societies Act: 297–8, 311
Industries, Urban, aided by Agricultural Development: 107, 266
Instruction, Agricultural: In Denmark, 29; Germany, 42–5; France, 72; Belgium, 100; Italy, 122; Holland, 126–9, 138, 386; Sweden, 178, 180–1; United States, 226–7; Canada, 240, 246–8, 253–7; Australasia, 261–2; Ireland, 273; England, 385–9

Insurance, Co-operative: Live-stock, 36, 71, 91, 223; accident, 71; hail, 71, 218; famine, shortage of labour, etc., 211; grouping of policies, 70, 91

Ireland: Report of Department of Agriculture on Denmark, 39; report on Germany, 55; early days of agricultural organization, 269–70; Recess Committee, 271; Department of Agriculture and Technical Instruction, 272; co-operative creameries, 272; poultry societies, 273; agricultural credit banks, 273–7; Agricultural Wholesale Society, 277–80; Co-operative Agency Society, 280–1; Irish railways and agriculture, 281–2; statistics of societies, 283; social results of movement, 283–5; the human element, 285–7; the new harmony, 287–8; Irish example inspires English action, 295; Irish v. Danish dairy methods, 369–3

Irish Agricultural Organization Society: 270, 272, 283

Irish Agricultural Wholesale Society: 277–80

Irish Co-operative Agency Society: 280–1

Italy: Eggs from, 19; conditions prior to agricultural revival, 105–10; the "Italian system," 106–8; organization of agricultural credit, 110–17, 122; formation of agricultural societies, 114–15; the travelling professor, 115–18; action of Roman Catholic Church, 118–20; statistics, 120–1; results, 121–4

Jam Factory Societies: 56, 68

Károlyi, Count Alexander: 144, 146

König, Mr. F. P.: 51, 52

Krämer, Prof. Dr. A.: 172

Labour Bureaux (France): 73

Labour Conditions in Australasia: 268

Labourers, Agricultural: Societies of, in Denmark, 38–9; supply of, in Switzerland, 170, in Poland, 216

Land: Reclamation of, in Denmark, 26–8; Germany, 53; Holland, 127; increasing value of, France, 84; Australasia, 266; system of tenure, Denmark, 29; Italy, 109; Holland, 129–30; Poland, 215–16; England, 323–6

Lapland, Agricultural Organization in: 191

Lega Nazionale delle Co-operative Italiane: 119, 168

Levy, Dr. Hermann: 316–26

Livestock Insurance. See under "Insurance"

Loading (Railway Cars) in the United States: 229

London and North Western Railway: 333–6, 355–63

London and South Western Railway Company: 77, 82, 343–51

Luxemburg: Need for organization, 221; agricultural syndicates, 222–3; establishment of Agricultural Credit Banks, 223; commission of experts, 223
Luzzatti, Signor Luigi: 111

Mabilleau, M. Leopold: 118
Machinery, Agricultural: Action of State in respect to, 223–4
Machinery, Co-operative Purchase of: 36, 51, 53, 55, 56, 62, 66, 87, 90, 115, 138, 211, 217, 300–1, 305, 376
Maddock, Miss Blanche: 250
Makins, Col.: 329
Manures (stable or town), Railway Rates for: 352, 353–4
Market-Gardeners: In France, 67, 84; Belgium, 103–4; Holland, 125–8, 130–5, 155–6; United States, 226–34; England, 321, 324–5
May-Beetle, War against: 70
Meat, Fresh (Holland): 136
Meat, Frozen (Australasia): 259–61
Méline, M.: 57
Mellaerts, M. l'Abbé: 96–9
Meyer, Pio: 169
Midland Counties Agricultural Supply Association: 305
Milk Supply: Central Co-operative Creamery Society of Budapest, 154–5; milk supply in England, 298, 303, 305–6, 317, 318, 337–9, 350–1
Mills, Mr. James: 240
Mistletoe: 86
Money-Lenders: In Italy, 109, 122, 123; Hungary, 143–5, 148; Servia, 208–10; England, 377–8
Montgomery, Mr. H. de F.: 55, 56
Morocco, Eggs from: 20
Mort, Mr. Thomas Sutcliffe: 259–60
Müller, Dr. Hans: 171
Musée Social: 57, 58, 118, 122
Muskham (Notts) Co-operative Agricultural Society: 300–1

National Agricultural Union: 290–1, 295
National Poultry Organization Society: 15, 302, 313, 381
Newark Dairy, Ltd.: 305–6

Old-Age Pensions (France): 72
Orphans, Support of: 72
Owens, Sir Charles: 344

Parsley: 86
Pellervo (Finland): 190–5

PHYLLOXERA: 70, 162
PLUNKETT, SIR HORACE: 269–71
PODWOLOCZYSKA: Eggs from, 17, 20; albumen factories at, 20
POLAND: Landowners and peasants, 215–6; shortage of labour, 216; purpose of agricultural societies, 217–8; fruit-growing, 219
POTATOES: Germany, 45–6; France, 83–5, 86; England, 319; Scotland, 353–4
POULTRY: England, 15, 319, 355–9; Denmark, 36; France, 78, 85, 86; Servia, 214; Australasia, 261; Ireland, 273
PROFESSOR, TRAVELLING AGRICULTURAL (Italy): 116
PURCHASE, COMBINED: general, 8; in Denmark, 36; Germany, 50–2; France, 61, 64; Belgium, 90, 96–7, 98, 101; Italy, 105, 114–15, 121, 122; Holland, 138; Hungary, 150; Switzerland, 172–4; Sweden, 178; Finland, 191, 193; Servia, 210–11; Poland, 217–18; Luxemburg, 222; Ireland, 278–80; England, 296, 298, 300–3, 372–5; Wales, 307–9

RAIFFEISEN. See under "Banks"
RAILWAY RATES: Conditions abroad, 4–6; lower rates secured by combination, 61, 65, 135, 139, 159; conditions in Ireland, 281–2; England, 327–63; Scotland, 353–5
RAILWAYS AND THE FARMERS: Friction between, 1; railway interest in rural districts, 2; question of quantity and conditions, 3; identity of interests, 3; the making up of "big loads," 135–6, 139, 231–4, 282, 309, 346–9; position in the United States, 228–31; effect of railway expansion (Argentina), 237; position in Ireland, 281–2; British farmers and railway rates, 327–8; action of Great Eastern Railway Company, 329–32; Great Western, 332, 336–42; South Eastern, 332; London and North Western, 333–6, 355–63; South Eastern and Chatham, 342–3; London and South Western, 343–52; Glasgow and South Western, 353–5
RAILWAYS, CONTINENTAL: Germany, 4; Belgium, 5; France, 5–6; Holland, 6; Denmark, 6
RAYNERI, M. CHARLES: 118
RECESS COMMITTEE (Ireland): 271
REFRIGERATION: In Australia, 259–61, 266; Denmark and Ireland, 360–3
ROCQUIGNY, M. LE COMTE DE: 59, 118
ROMAN CATHOLIC CHURCH AND AGRICULTURAL CO-OPERATION: In Belgium, 93–102; Italy, 105, 118–20; Holland, 139; Ireland, 288
ROQUEVAIRE, CAPER-GROWERS OF: 67–8
RUMANIA: Eggs from, 16, 18
RURAL LIFE, EFFECT OF AGRICULTURAL ORGANISATION ON: Denmark, 38–9; France, 74; Italy, 113, 123–4; Holland, 138; Hungary, 149–53; Canada, 250–2; Ireland, 285; general, 365–9

RUSSIA: Eggs from, 16–19; Russian eggs for Denmark, 35; competes with Finland, 184. See also "Siberia"
RUTLAND, THE DUKE OF: 307
RYE, A CRISIS IN (Finland): 184–5

SALE, COLLECTIVE: In Denmark, 32, 35; Germany, 51, 55; France, 64, 67, 68–9; Italy, 121; Holland, 131–8; Hungary, 154–9; Switzerland, 174; Luxemburg, 223; Ireland, 280–1; England, 291–4, 296, 298, 302, 303, 305–7, 372; Wales, 308–9
SANSEVERO, VINEYARDS AT: 122
SCALFORD DAIRY, LIMITED: 306
SCHOU, MR. RUDOLF: 26
SCHULZE-DELITZSCH. See under "Banks"
SCIENCE AND AGRICULTURE: 43, 46, 60, 181–2, 226–7, 261, 270
SCOTCH FARMERS IN ESSEX: 321
SCOTLAND: Potato-growing at Girvan, 353–4; lower rates to agriculturists in Wigtonshire, etc., 355
SEEDS, BAD: In Canada, 248; Ireland, 278; Wales, 278
SEGELCKE, PROF. T. R.: 26
SERVIA: Financial troubles of farmers, 208–10; village banks, 210–11; co-operative agricultural societies, 212; the "Court of Good Men," 212–13; exports to Great Britain, 213–14
SIBERIA: Eggs from, 17, 22; dimensions of dairy industry, 197–8; growth of, 198–200; difficulties, 201; export arrangements, 202–4; qualities, 204–5; future outlook, 206; attitude of peasantry towards British, 206–7; expansion due to organization, 207
SICK, INDIGENT, RELIEF OF (France): 73
SOCIALISM: Check of, by agricultural organization, in France, 73; Belgium, 93–5, 102; Italy, 119
SOUTH EASTERN RAILWAY: 332
SOUTH EASTERN AND CHATHAM RAILWAY: 342
STATE AID: In Denmark, 34, 36, 38; Belgium, 93, 100; Italy, 124; Holland, 125–9, 139; Hungary, 139, 160–4; Austria, 165–8; Finland, 186, 190, 194; Poland, 219; Canada, 244–8, 256; Australasia, 261–5; England, 315, 383
SWEDEN AND NORWAY: Sweden and Denmark compared, 176–7; co-operative methods, 178; position of dairy industry, 178–9; purchase societies, 179; agricultural societies and their work, 179–80; agricultural education, 180–1; co-operation in Norway, 182
SWITZERLAND: An economic crisis, 170–1; need for combination, 171–2; local organizations and district federations, 172; co-operative stores, 173; check to full expansion of movement, 174–5
SYNDICATS AGRICOLES, ORIGIN OF: 58–63

TARIFFS, PROTECTIVE: In Germany, 42; France, 85; Sweden, 177; Poland, 216
TEMPLETOWN, LORD: 295
THRIFT: Italian ideas on, 106–8
TRADERS AND AGRICULTURAL CO-OPERATION: 173, 218, 279, 305, 373–5
TRENTINO DISTRICT, CONDITIONS IN: 168–9

UNITED STATES, THE: Illinois Central Railroad, 225–6; growth of trade in market-garden produce, 226–8; railway arrangements, 228–9; need for organizations, 229; basis on which operated, 230–1; traffic statistics, 232–3; change in Southern production, 233; Farmers' Institutes, 243

VALE OF TIVY (Wales) AGRICULTURAL SOCIETY: 308
VARLEZ, M. LOUIS: 88

WAGENINGEN, STATE AGRICULTURAL COLLEGE AT: 126
WALES: Welsh Farmers' Federation, 307; number of local societies, 307; attitude of Welsh farmers, 308; examples of local societies, 308–9; large contracts, 309; lectures at University College, Aberystwyth, 310
WALLEMBORG, SIGNOR: 112
WESTLAND DISTRICT (Holland): 130, 133
WHEAT-GROWING: 26, 42, 59, 85, 125, 157–9, 219, 319–20
WILLIAMS, PROF. D. D.: 310
WINCHILSEA, LORD: 290–4, 295, 329, 332
WINE-GROWERS' SOCIETIES: 53, 55, 67, 121, 154
WOMEN'S INSTITUTES: 248–52, 381–2
WORCESTERSHIRE, AGRICULTURAL ORGANIZATION IN: 302–5
WORCESTERSHIRE CHAMBER OF AGRICULTURE: 305

YERBURGH, MR. R. A., M.P.: 295, 296

ZUIDER ZEE, THE: "Cabbage Train" from shores of, 136; new life in the "Dead Cities," 139

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